

euromedica hannover 2006

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29 — 30. MAI 2006

INTERNATIONALER MEDIZINISCHER KONGRESS

HANNOVER CONGRESS CENTRUM

Programm Abstracts

Europäische Akademie für Naturwissenschaften, e.V. Hannover
Europäische Wissenschaftliche Gesellschaft e.V Hannover

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Dear colleague,

You hold in your hands the book of abstracts of the 5th international congress “Euromedica-Hannover”, which took place on 29-30 May 2006.

Initiators of this forum were EAEN, European Scientific Society and Institute for Clinical and Experimental Lymphology of Siberian Branch RAMN.

For the years of its existence the congress has become a significant event in the medical and public life of Germany and countries of Eastern Europe and an important medical forum contributing to development and promotion of modern methods and approaches to medicine and health care. Its active participants are specialists of different levels – from chiefs of medical institutions, academicians and professors, directors of medical clinics and practicing doctors to young doctors and scientists.

The theme of the forum «Rehabilitation medicine and functional nutrition” has been and still remains relevant and actual. It keeps on attracting the attention of the whole medical community. Today, rehabilitation is an acknowledged realm of the medical science that accumulates achievements of rehabilitation therapies, up-to-date technologies, medications and encourages introduction of new equipment into medical practice.

Of special note is the contribution of the congress “Euromedica-Hannover” to development of international contacts of scientists and doctors, which is very important for thousands of medical specialists in Germany that are linked with professional, cultural, linguistic and personal interests to the countries of Eastern Europe.

Proceedings of the congress have been released each time with an increasing circulation becoming not only the property of the participants but also finding their place in medical libraries in Germany and, hopefully, in other countries. There is no doubt that Euromedica should go on growing qualitatively and quantitatively being a sharing platform for best accomplishments in the field of diagnosis, prevention and rehabilitation.

Dr. med. G. Tyminskiy
Vorbereitender Ausschuss

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Yu.I. Borodin

EXPERIMENTAL BASE OF PROPHYLACTIC LYMPHOLOGY

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A prophylactic lymphology (Y.I.Borodin, 1994) is a new branch of lymphology using some lymphologic methods for disease prophylaxis and rehabilitation. Prophylactic lymphology may be considered as a constituent part of prophylactic medicine.

The methods of prophylactic lymphology may be applied to the various parts of the lymphatic drainage namely, to the interstitial nonvascular pathways of microcirculation which are the source of the lymphatic production, and to the lymphatic vessels and nodes.

The principle of conservation, restoration or increase of own lymphatic detoxication and lymphatic drainage in organism of man or animal is a base of the used lymphatic methods.

We used the methods of lymphatic stimulation, lymphatic correction and lymphatic protection in sanogenic purposes.

Own (natural) lymphatic detoxication of the poisonous substances gotten into the internal medium of organism and then into the lymphatic bed is fulfilled with biophysical, biochemical and immune processing of tissue liquid and lymph formed from it in the lymphoid structures of this region.

We have influenced on the lymphatic drainage and natural lymphatic detoxication with methods of lymphatic stimulation, lymphatic correction and lymphatic protection in experiment, clinic and also in the prophylactic purposes.

Lymphatic stimulation increasing the lymphatic production and lymphatic flow contributes to the removal of the poisonous substances from the internal medium of organism. The various lymphatic stimulators have been used in this purpose.

The products containing bioflavonoids, microelements and vitamins have been used for the lymphatic correction directed to the sanitation of the lymphatic system injured with pathogenic factors. As our investigation shown, abovementioned substances are contained in many plants of Siberia and Altai.

Many products using for the treatment of diseases of heart, liver, gastric intestinal tract, reproductive organs are produced on the base of these substances (T.A.Astashova, V.V.Astashov, G.F.Chernenko at al.).

Sorbents of the different genesis and compose are used for lymphatic protection i.e. for the prevention of pathologic changes in the lymphatic system. Carbon mineral sorbents SUMS-1 and SIAL (L.N.Rachkovskaya) have been made.

Combing the principles of lymphatic stimulation, lymphatic protection and lymphatic correction the original biological additives successfully used in prophylactic medicine have been developed (T.A.Astashova, V.V.Astashov).

T. I. Alekseenko

ASSESSMENT OF THE FUNCTIONAL STATE OF CARDIO-RESPIRATORY SYSTEM IN TEENAGERS UNDER CONDITIONS OF A MEGAPOLIS

“National Sport-Park” Association, Moscow, Russia

A priority objective of the social-economic development in the Russian Federation is overall protection and strengthening of children’s health. The human health is formed during ontogenesis so that every stage of which is characterized by a different level of the body development. Consideration of health as an integral state of the organism presupposes determination of its psychophysiological, morphofunctional, typological and other indices that depend on individual regularities of the human development. Correlation of health and social factors, hereditary and genetic consequences of environmental pollution were studied.

The results of complex assessment of health status in teenagers residing in Moscow prove that during the last 10 years the number of healthy teenagers has decreased up to 8,6%. At present time the number of schoolchildren with functional dysfunction is 36,0%, suffering from chronic pathology with various degrees of severity - 55,4%. During the same period growth of functional disorders has been also revealed. For the increase of functional disorders accounts mainly poor blood circulation as well as chronic upper respiratory tract diseases, endocrine, metabolic and allergic disorders. On the whole occurrence of the above mentioned disorders of somatic health has grown on 47,3%. It creates negative background for development in the further age periods of health significant disorders.

Transition between health and disease is a complex theoretical and practical problem of the medical science. Till the present time it has been solved in the framework of nosologic approach: one class of healthy people and numerous classes of diseases to be considered. During the last ten years another view on this problem has been developed. During the prenosological approach numerous levels of health and as an independent class – disease is considered.

In IBMP RAS RF a program of prenosological examination of the population “Health Navigator” has been developed. With the help of this program 960 practically healthy Moscow schoolchildren of at the age of 14-17 were examined. The objective of our investigation was to determine the functional state of cardio-respiratory system in the teenagers from a large industrial center. The analysis of the obtained data showed that all the characteristics (heart rate at rest, systolic and diastolic pressure at rest, stroke volume at rest and with loading, blood minute volume with loading, CVS adaptability, respiration rate, lung vital capacity, oxygen maximum intake) are within the limits of the age norms. The tendency of shifting of values of each parameter to the side of lower limits is observed both in girls and boys. During loading tests of moderate power (Shtange’s hypoxic test,

Rufie test, two-stage step-test) tension of cardio-respiratory system work was observed that was manifested in the decrease of CVS adaptability, oxygen maximum intake, general work capability, blood minute volume.

The developed technology enables to answer the most important questions: what part of children's population has high, medium and low reserves of physical health, how effectively sanitary-prophylactic programs are implemented; how geographical, economic and social factors influence children's health.

V.V. Astashov
Y.A. Antsyreva

MODERN APPROACHES TO REGENERATIVE TREATMENT AND REHABILITATION IN POSITIONS OF PROPHYLACTIC AND ECOLOGICAL LYMPHOLOGY

Institute of clinical and experimental lymphology Siberian Branch of RAMN, Novosibirsk, Russia
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The following factors, so-called "diseases of civilization", menacing to human population and promoting growth of pathology are noted according to international scientific community: 1) disturbances of feed structure; 2) environmental contamination; 3) lack of physical activity; 4) emotional stresses. Negative influence of these factors is caused by pollution of intercellular (pericellular) space of an organism to a great extent.

Special attention to sanation of pericellular space is considered to be justified strategically. Pericellular space is such external microhabitat which defines life and death of a cell.

It is known that lymphatic system supports constancy of the organism internal environment (pericellular space), the microhabitat which provides cell's plastic, power and secretory functions. Thus the role of the lymphatic system can be formulated as drainage – detoxicational. The drainage of pericellular space demands continuous and multilevel biophysical, biochemical and immune control connected with continuously changing biophysical, biochemical and antigenic contents. Lymphoid organs of different levels (congestions of lymphoid tissue, solitary and aggregate, lymph nodes of different stages) act as supervising structures. Permanent natural lymphodetoxication is carried out in these lymphoid formations through the processes of adsorption, filtration, endo- and exocytosis, biotransformations and immune processing of antigenic material .

The main principles of management by drainage – detoxicational processes or processes of lymphosanation have been developed in the Institute of clinical and experimental lymphology RAMS. The main principle of lymphosanation is address influence on the certain level of lymphodrainage mechanism. It is laid in the basis of developed by us program of lymphosanation and improvement of an organism. The program is

a complex of methods of therapy of support directed on stimulation of the organism protective forces. Lymphosanation includes ways of influence on pericellular environment (prelymphatic ways) and structural parts of lymphatic system. We mark three basic ways of lymphosanation: lymphostimulation, lymphoprotection and their combined application. Lymphostimulation is directed on strengthening of lymphoformation in intercellular space (laser lymphostimulation; lymphatic massage; balneotherapy, peloidotherapy) and strengthening of lymphflow in large lymphatic vessels (thermotherapy, physical activities, phytotherapy) in our opinion. Lymphoprotection includes detoxication of pericellular spaces by influence on the organism environment (enterosorption, phytosorptional therapy with use of original functional foods (FF), developed in the Institute), restoration of permeability of walls of microcirculatory channels, pro -and antioxidant balance (FF, phytotherapy), completion of vitamins and microelements in an organism.

Methods of lymphosanation are diverse, they are not alternative to pathogenetic therapy, but can and should be applied alongside with pathogenetic treatment as the certain background, improving treatment directed on stimulation of own protective forces of an organism. In some cases rehabilitation methods by means of lymphosanation get character of pathogenetic therapy.

T.A. Astashova

PHYTOSORPTIONAL BIOSTIMULATING COMPLEXES AS PRODUCTS OF FUNCTIONAL FOOD IN REHABILITATION MEDICINE

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of Siberian Branch of Russian Academy of Medical Sciences,
Laboratory of lymphotropic technologies, Novosibirsk, Russia*

Stimulation of organism protective forces is connected with formation of reserve of nutrients and micronutrients. Natural functional foods have been developed with the purpose of enriching the person's health resource within the program of population health improvement created in the Institute. Developed functional foods (FF) influence initially through gastroenteric tract and further on cell environment and lymphatic system. Ideology of correcting the essential nutrients deficiency without risk of overfeeding is laid in creation idea of the FF series. Simultaneous deducing of harmful metabolic products, ballast and toxic substances of various origin is achieved due to strengthening of functional activity of lymphatic system. Resulting effect of such FF action develops from sorptional detoxication of the organism internal environment, delivery of essential nutrients in an organism and regulation of metabolism processes.

Detoxication of the internal environment is achieved by multipurpose influence of calculated compound of natural food fibres, which are widely used by dieticians as

hemoprotectors for elimination of the expressed deficiency of feed structure. The food fibres enter through intestines and participate in the cycle of bile acids and cholesterol metabolism. The food fibres are suppliers of vital aminoacids and vitamins of group B, they form special matrix which physical and chemical properties define their sorptional, homeostatic and therapeutic functions. Phytocomponent of the FF is presented by specially picked up synergistic herbs. The herbs ratio is calculated according to contributions of contained physiologically significant biologically active micronutrients possessing the certain action on different organs and systems. The functional role of the offered FF consists in cells perfusion. The type of the FF influence on the organism internal environment combines phytosorption and biostimulation.

FF of the series “Lymphovit” are created for protection of cellular function. They possess various nosological orientation: cardiological, urological, gynecological, andrological, antiallergic, sedative, hepatoprotective. The idea of protection and activation of cellular function is laid in the series “Harmony Vita”. FF of the series “Fitopan” contain natural biologically active substances of vegetative and animal origin for correction of feed structure. The FF “Berezhnik” and “Bereginya” have been developed for dietological correction in therapy of support in pretumoral and tumoral processes. The quantitative analysis of the maintenance of essential biologically active substances has been conducted for experimental estimation of efficiency of the phytocomplexes. Informative markers and adjusting mechanisms involving introduced in the internal environment phytohemoprotectors have been revealed. Tissue microregion in its bilateral interactions with organism environment, blood and lymphatic channels was considered as a target of the FF improving action. Numerous clinical estimations of efficiency of the developed FF have been conducted in hospitals and other medical institutions in view of subjective estimation and objective clinical and laboratory researches. The results of application of ration corrections were estimated in combination with basic therapy.

Application of phytosorptional biostimulating complexes (FBC) as dietological correction results in biological prophylaxis among healthy people and biological regulation in stages of disadaptation and preillness. The FBC action is directed on formation of the capital of health of a person.

C. Beckmann-Link

GELINGENDE KOMMUNIKATION ALS ERFOLGSAUSTEIN MEDIZINISCHEN MARKETINGS

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1. Kommunikation als Erfolgsbaustein

Kommunikation – der Kontakt des Praxis- und Klinikpersonals (Ärzte, Mitarbeiter)

gehört zu den anspruchsvollen Herausforderungen im täglichen Umgang mit Patienten. Kommunikation wird auf der Beziehungs- und Sachebene ausgetauscht und erlebt. Wenn der Patient die Wahl hat, entscheidet er in den meisten Fällen auf der Beziehungsebene - aus dem Bauch heraus - ob es zu einem nächsten Besuch kommt.

2. Der Nutzen gelingender Kommunikation

Bei herausragenden Therapeuten der Neuzeit (Erickson, Perls, Satir) fand man u. a. bestimmte Kommunikationsmuster, bestimmte Vorgehensweisen, die sie besonders erfolgreich machten.

Damit übertrafen sie ihre Berufskollegen bei weitem.

Die Gestalttherapeuten Erving und Miriam Polster sind der Ansicht, dass Kontakt das Herzblut der Entwicklung sei, das Mittel, sich selbst und seine Erfahrung der Welt zu verändern.

Wenn nun dem Kontakt eine so bedeutsame Rolle in der Entwicklung beigemessen wird, dann ist Kommunikation auch ein exzellentes Mittel, um gelingende Kommunikation mit Patienten herzustellen.

3. Basics – Elemente emotionaler Patientenbindung

Um guten Kontakt zu Patienten herzustellen ist eine Betriebsatmosphäre erforderlich, die von Wertschätzung, klaren Regeln und gelingender Kommunikation geprägt ist. Patienten erspüren seismographisch, ob das Klima in Kliniken und Praxen stimmt – oder nicht. Dies beeinflusst ihre spätere Entscheidung, ob sie sich jemals wieder gerade in dieser Klinik oder in dieser Arztpraxis behandeln lassen wollen. Auch sind die Patienten „Stimmungsmacher“ als Multiplikatoren. Sie empfehlen die Klinik oder Praxis weiter; im schlechtesten Fall werden sie mit negativen Äußerungen potentielle Patienten verhindern, zu zukünftigen Patienten zu werden.

4. Gelingende Kommunikation - Beispiele aus der Praxis für die Praxis

Besonders sensible Achtsamkeit ist dem gesamthaften Prozess des kommunikativen Auftritts (einer Klinik oder Arztpraxis) zu schenken. Dabei ist das verbale und non-verbale Kommunikationsverhalten der Ärzte und Mitarbeiter gegenüber dem Patienten zu untersuchen. (Welche Kommunikationsmuster sind ermutigend? Welche sind hinderlich ?)

So zum Beispiel gibt es in der Regel für den ersten Eindruck keine zweite Chance. Hier werden die Weichen gestellt, ob der Patient bleibt und weitere Besuche folgen.

Der vierte Teil des Vortrags widmet sich dem täglichen Umgang mit Patienten.

Wie kann es gelingen zwischen Arzt – Mitarbeiter – Patient? Positive Beispiele und Lösungsmöglichkeiten für nicht – angemessenes Verhalten werden aufgezeigt.

G.I. Boryaev
Yu.V. Kravchenko

**SELENOPIRAN IS ORGANIC COMPOUND OF SELENIUM
WITH ORIGINAL BIOLOGICAL PROPERTIES**

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In 1981, selenopyran, an organic selenium compound with selenium mass percent amounting to 24 (C₁₉H₂₂Se, 9-phenyl-symmetrical octa-hydroselenoxanthene) was produced as a result of the research directed by Professor A.F. Blinokhvatov. The scientist neutralized the compound toxicity by binding a selenium atom to the heterocyclic ring. Trials on chicken showed a 77-time toxicity decrease as against that of sodium selenite, and a 490-time decrease in the trials on white mice (LD₅₀ – 1600 mg per 1 kg body mass). Being soluble in oils and spirit, selenopyran is insoluble in water due to which has a longer retention time, thus, serving as a kind of “selenium depot” in the organism.

Selenopyran proved to reduce the intensity of methyl oleate oxidization which became apparent in the decrease of fatty acid peroxides. Selenopyran demonstrated its advantageous properties as an antioxidant compared to buthyhydroxytoulene (BHT) and tocopherol. Selenopyran which was either introduced intramuscularly or supplemented to the diets of the laboratory animals (chicken, calves, piglets, lambs, and Wistar's rats) under oxidative stress, provided a decrease in levels of diene conjugates and malonic dialdehydes in blood, liver, myocardium, aorta and tunica mucosa of small intestines. Selenopyran introduced (per os) to a combination vitamin enrichment therapy in patients with coronary heart disease and myocardial infarctions was found to reduce plasma and erythrocyte levels of malonic dialdehyde.

Selenopyran is supposed to be absorbed with fats in the intestines and transferred as a constituent part of lipoproteins. Selenopyran is further metabolized in the cytochrome-450 monooxygenase system, at the same time the number and catalytic activity of monooxygenases having molecular weights of about 49 000 D are found to increase. Later on, upon opening of the covalent bond, the reduced tetravalent selenium is released. The selenopyran metabolites appear to conjugate with proteins, thus, stimulating the immune response. The reduced selenium is involved in formation of glutathione peroxidase and other selenoproteins. Selenopyran is a double-action antioxidant. It was found that upon an increase of peroxide concentration in a system (in vitro), selenopyran gets recycled forming a carbocyclic compound (β-cycloketol) and eliminating a heteroatom. Thus, an increase of peroxide level in vitro and in vivo systems initiates both activation of a system and a prompt supply of selenium essential for stimulation of antioxidative enzymes. Therefore, we define selenopyran as a self-contained antioxidant and “emergency-call selenium”.

During a further study of the preparation a selenopyran-related dose-dependent decrease of intracellular cholesterol level was registered both in human macrophage and aorta intimae unstriped muscle cell cultures pre-treated with the atheriogenic plasma. The antiatherogenic effect of selenopyran was proved both by experimental studies and clinical trials. Introduction of selenopyran in rats' special atherogenic diet, caused a reduction of total and β -cholesterol levels and an increase of α -cholesterol levels. The antiatherogenic effect of selenopyran was demonstrated by histological examinations. A reliable inhibition of atherogenic changes was indicated in aorta. Similar results were obtained in two clinical placebo-controlled trials of selenopyran-containing preparations introduced to myocardial infarction and coronary heart disease patients.

In summary, the range of application of selenopyran in clinical and dietary nutrition in Russia is to a considerable degree determined by its chemical and biological properties. Due to supplementation of oils rich in polyunsaturated fatty acids with selenopyran the food is found to acquire both stabilizing and antiatherogenic properties. Selenopyran combined with vitamin and microelement complexes available either in the form of tablets or in food substances adds immunostimulating and antioxidative effects to their properties

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K.A. Kochetkov

A MODERN LINE OF COMPLEX BIOPROTECTORS AND REHABILITATION OF HUMAN BODY AGAINST ULTRA LOW DOSES OF TOXIC CHEMICAL AGENTS, SOME PHYSICAL AND STRESS FACTORS

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Basic stages of the work

- Investigation of toxic effects of ultra low doses of some compounds and physical factors with the purpose of prediction of their pathogenic effects on human body and confirmation of the hypothesis of their important role in the mechanisms of their destructive effect on human body
- Analysis of the observed pathophysiological effects in order to develop therapeutic mixtures
- Development of a protective-preventive complex of biologically active additions for therapy and enhancement of human body resistance

Summary of the research

- A model of pathogenesis of the effects of toxic compounds in combination with a set of other biological or physical factors was proposed
- The cornerstone of model proposed is a conflict between the host and parts of indigenous microflora that is initiated by a toxic agent
- Depending on the scale of the conflict and the cell systems involved, different clinical signs may follow such as disbacteriosis, functional dysfunction of respiratory and intestinal tract, secondary local immunodeficiency, etc.
- The dysbacteriosis is characterized by the release into internal organs many toxins, low-molecular metabolites and other toxic compounds. The Syndrome is culminated by profound injuries in different internal organs: liver, brain, lungs and, to a smaller degree, spleen, kidneys, bowels.
- As a result of described processes the body is driven to its borderline state in which the clear pathology is absent, but there is a definite abnormality making the body readily susceptible to further hazardous environmental challenges.

Practical results

From aforesaid it follows that strategy in protection/prevention should be to:

- Decrease the amount of alienated microflora
- Increase the resistance of epithelia by increasing the capacity for bacterial colonization and decrease its permeability to pathogenic bacteria
- Increase the resistance of internal organs, primarily liver, brain, bowels, lungs

There are many practical consequences of these phenomena. So, components, function and testing of the protective-preventive complex (PPC) of biological active licenced additions which contains more than 30 components will be considered. Experimental techniques for testing therapeutic effect and application of PPC will be discussed. In conclusions future research and commercial perspectives will be presented.

G.P. Bocharov
T.I. Sidorova

MODERNE TECHNOLOGIEN UND KOMPLEXE PROGRAMME DER REHABILITATIONSMEDIZIN IM SANATORIUM «BARNAULSKIY»

Sanatorium «Barnaulskiy», Barnaul, Russland

Sanatorium «Barnaulskiy» ist ein Sanatorium für 480 Menschen, der ersten Qualifikationskategorie. Hat einen Zertifikat der Entsprechung den Dienstleistungen der Rehabilitationssanatorien der besten Klasse. Hat internationale Anerkennung - Gran Pri Effi und internationaler Zertifikat (Frankreich, 2003).

Das Sanatorium liegt in der Hauptstadt des Altai, Barnaul, in einer malerischen, hügeligen Landschaft in einer ökologisch - sauberen Parkzone, am Fluss Ob.

Die Profile des Sanatoriums lassen Menschen mit Herz-Kreislaufsystemkrankheiten, des

Stütz- und Bewegungsapparats, des Nierensystems, der Atmungsorgane, der Knospe, des Magendarmtrakts und der gynäkologischen Krankheiten heilen.

Es arbeiten Zentren der neurologischen Medizin, der Gynäkologie und der professioneller Krankheiten.

Es werden neuartige Heilungsmethoden angewendet: Ozonotherapie, Speleotherapie, Aerokriotherapie, Colonhydrotherapie, Behandlung mit Schlamm im größten Schlammkurort des Altai, Wärmevibrotraktion, Pantoheilung, Geräte „Bos“ (Boslab, Miton), „Lymphdigei“, „Transion“ Magnettherapie, Barotherapie „Medomer“. Es werden alle Arten der Balneotherapie angewendet (Bad, Dusche, Schwimmbad, finnische, russische und türkische Sauna).

Es wird breites Spektrum an Diagnostizierung angewendet: Ultraschall, Endoskopie, Röntgen, Funktionelle-und labormethoden, darunter PCR, Hämostase, Bioelektrographie und Lymphographie.

Die Annerkennung des Sanatoriums stützt sich auf eine reiche und moderne Heilungs- und Diagnostizierungsbasis, hochqualifizierte Fachkräfte und wissenschaftliches Team, ständige Einführung neuer medizinischer Methoden und Technologien, Entwicklung eigener wissenschaftlich erprobter Methoden und Erarbeitung wichtiger sozialer Programmen.

Gemeinsam mit wissenschaftlern des Lymphologie Institutes SO RAMN unter der Führung von Akademiker J.I. Borodin wurde im Jahr 1998 das Programm der endoökologischen Rehabilitation und Lymphosanation unter kurörtlichen Bediengungen mit Anwendung unikalener Enterosorbents und Lymph-stimulierende Mitteln.

Die Verwirklichung des Programms wurde in mehreren Richtungen durchgeführt. Das führende Thema der Zusammenarbeit war die Rehabilitierung der Patienten mit professionellen Erkrankungen. Es wurden Basisschemen der endoökologischen Rehabilitation durch eine Zusammenstellung der Phytosorbtorial Komplexen für Patienten mit professionellen Staub Bronchitis, der Pneumokoniose, der Polytoksikose, Vibrationskrankheit, Neuritis des Nervus acusticus. Es wurde eine höhere Effektivität der Heilung bei Patienten nachgewiesen, die mit komplexen Lymphosanation behandeln wurden im Vergleich zu denen, die eine traditionelle sanatorielle Behandlung durchgemacht haben.

Die Mitarbeiter des Sanatoriums entwickelten eigene origenelle Heilungsmethoden und Programme.

A. Buchinger

MODERNE ERNÄHRUNG UND KONSEQUENZEN

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Basierend auf den jahrzehntelangen Erfahrungen in der Ernährungstherapie der Klinik Dr. Buchinger berichtet Dr. Andreas Buchinger in seinem Vortrag darüber,

welche langfristigen katastrophalen Auswirkungen und Folgen die moderne Ernährung (= Nahrungsmittel aus Fabriken) auf die Gesundheit der Menschen hat. Dr. Buchinger wird auch Hinweise geben, inmitten des Überflusses diejenigen Nahrungsmittel herauszufinden, die der Gesundheit dienen. Moderne Ernährung wird immer mehr genutzt im Sinne eines Lifestyle-Instruments, sozusagen als Angebot zur Erfüllung von Wellness- und Anti-Aging-Visionen (letztlich unter Vorspiegelung falscher Tatsachen und unerfüllbarer Versprechen), die mit aufgemotzten Werbekampagnen den Erwerb ewiger Jugend, Schönheit und Fitness suggerieren. Moderne Ernährung ist auch Wandel vom Mangel zum Überfluss mit nachfolgenden massiven negativen Folgen. Dr. Buchinger wird auch die sich aus der modernen Ernährung ergebenden finanziellen Konsequenzen für das deutsche Gesundheitssystem nicht verschweigen.

Die Klinik Dr. Buchinger verfügt über ein sehr grosses Maß an Wissen und Erfahrung im Bereich Ernährung seit ihrer Gründung im Jahre 1920.

R.A. Dairova
O.Y. Lisachev

ETIOLOGY AND EARLY DIAGNOSIS OF PSYCHOSOMATIC DISORDERS

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It is necessary to make favourable conditions of environment for normal child's development. The environment for the child after his birth is his mother or a person performing her functions: feeding, nursing, protection and love.

The goal of our investigation was to analyze peculiarities of the early emotional child's development and its influence for psychosomatic disorders origination.

We used the following methods of investigation: 1. interview with a child/mother, 2. supervision for the child during consultation, 3. supervision for the relationships between mother, 4. father and child, 5. child development report data

The results of our investigation are the following.

200 families with children with bronchial asthma and atopic dermatitis have been analyzed. 71% of the mothers during their pregnancy were subjected to stress and psychological load. The same situation was observed in the dynamics of the mood during the first child's year, 68% of the mothers had depression. Breast feeding: 58% of the mothers had first feeding after 2 days because of mother's or child's complications in puerperal period. 23% changed the breast feeding on 10 – 12 months, 45% changed the feeding before 3 months and 16% changed the feeding on 18 – 30 months.

All children with serious passing of bronchial asthma had early parting from their mother and the beginning of the disease in their first years of the life. Then, after all parting from the mother the child had worsening of asthma. Only 23% of the children attended kindergarten but 16% of them began attending only before school at the age of

six, 61% didn't attend kindergarten and spent all the time with their mothers at home (mothers didn't work). 68% of the mothers slept with their children together in the same bed.

The resume is the following.

The early period of the children's development and their relations with the mother have a great importance in the forming of the symptom of the disease.

Yu. Dautov
T. Urakova
R. Khokon
M. Thakushinova

THE EFFICIENCY OF A COMPLEX NON-MEDICAMENT PROGRAM FOR ENDOECOLOGICAL REHABILITATION IN PATIENTS WITH COMPLICATED METABOLIC DISORDERS

Center for Rehabilitation Medicine, Maikop, Russia

Endogenous intoxication (EI), as a possible trigger of metabolic dysfunctions is frequently a concomitant condition under chronic non-infectious diseases (CNID), such as abdominal obesity, type 2 diabetes and arterial hypertension especially under their combinations. In the discussed group of obesity patients (389 patients) aged 16-65 y.o. arterial hypertension (AH) was stated in 54% of the cases; occurrence of diabetes mellitus type 2 in combination with obesity was diagnosed in 56 patients. The efficiency of complex endoecological rehabilitation (EER) with the use of fasting-dieting therapy (FDT), psychological correction, massage, water treatments, adaptive physical activity, colon therapy, phyto-coctails and sacred music was investigated.

The analysis of laboratory findings was based on recommendations of the National Institutes of Health, USA (Adult Treatment Panel III, 2001). Ultimately as the result of our 19 day in-patient rehabilitation program there was an 11,1% reduction of body mass (Kettle) index; average BP - by 23,3%, malonic dialdehyde (MDA) by 35%, total cholesterol - by 14,3%, low density lipoprotein cholesterol (LDLC) - by 19,3%, intoxication index - by 35%. The analyzed values of high density lipoprotein cholesterol (HDL-C) (n=71) in males were less than 1,29 mmol/L, in females (n=88) - lower than 1,04 mmol/L. There was an actual rise in HDL-C among male patients from 1,03 up to 2,38 mmol/L by 23%, in female patients - from 0,83 up to 3,2 mmol/L; deviations in the levels of pyruvic and lactic acid were irrelevant and within the norm. All the patients reported stabilization in arterial blood pressure, reduction of complaints by 97,3%, manifested shortening of intake or complete refusal from hypotensive or sugar-reducing medications. The applied information technology (a 40 hour lecture course) and inclusion of sacred music providing psychological correction are essential compounds of the discussed therapy, which facilitates the restoration of informational homeostasis at metabolic disorders.

Therefore, an individualized program of the endoecological rehabilitation in patients with combinatory variations of CNID and metabolic disorders proves to be an integral and efficient approach for preventive and rehabilitation medicine.

A.S. Davlatov
A.A. Mikhaylova
V.V. Koshelev

PSYCHOGENIC ERECTILE DYSFUNCTIONS IN PATIENTS WITH NEUROTIC DISORDERS AND THEIR CORRECTION

MMA named after I.M. Sechenov, Department of "non-medical treatment and clinical physiology", Moscow, Russia

Psychogenic erectile dysfunctions (ED) of patients with neurotic disorders happen primarily in young men. However, the criteria of their diagnostics and correction haven't been approved by now. The complexity of therapy in this case results from both rigid psychological status of patients and side effects of psychoactive drugs used in the main therapy. According to WHO (1995) more than 152 million men in the world suffer from erectile dysfunctions. Some experts prove that up to 80% of men experiencing sexual problems never turn to a doctor or ask for treatment. Psychogenic ED, resulted from depression, situational sexual failure or other stress-factors occur in 25%-90% of cases and depend on the intensity of neurotic disorders. On the other hand, coitus failure could be one of the most serious emotional traumas for any man and because of paramount personal importance of sexual life could provoke neurotic disorder. In both cases the neurotic disorder therapy includes psychoactive drugs reducing libido and disqualifying erection. This is the reason why the new approaches to the correction of the abovementioned disorders are needed.

Purpose of the given research was to study the effectiveness of manual therapy and reflex therapy in the correction of psychogenic erectile dysfunctions of patients with neurotic disorders.

Material and methods: 47 men at the age of 34.6+1.4 complaining of failed erection underwent clinical, psychopathological and sexology examination. Average ED period was 1.1±0.3 year. The most typical complaints were no or weakening pre-coitus erection and insufficient coitus erection. The group of patients included the men who: 1) had no inborn sexual pathology confirmed by special complex examination (ultra-sonic examination of penis, visual and palpation estimate of genitals condition, digital investigation of prostate gland and testing of its secretion in the lab, diagnostics of the touch sensibility and genital reflex); 2) had ED psychogenic mechanism; 3) had permanent sexual partner; 4) agreed to non-medical correction therapy. MMPI test helped to estimate via psychometry the current mental condition and personal characteristics of patients. The correction included manual and reflex therapy techniques.

Treatment results and review. All 47 patients proved insufficient genital reactions following ICD-10 criteria (F52.2). Clinical and psychological tests identified the following ED-provoking factors: 28 patients experienced neurotic symptoms like non-automatic genital reactions with weak or no coitus erection, anxious anticipation of coitus failure and possible reproachful comments made by the sexual partner, hypochondriac ideas and low self-appraisal and mood. 19 patients suffered from improper adaptation

as the psychopathological symptoms resulted from permanent stress-factor. 4 of them experienced short-term depressive reactions (F43.20); 7 – prolonged depressive reactions (F43.21); 8 – mixed anxious and depressive reactions (F43.22). Since ED are classified as the syndromes of heart, liver and kidneys meridians insufficiency (In-syndrome), the energy balance in those meridians was restored. The treatment started with the general points (E-36, TR-5, PC-3) followed by local and distant ones (R-6, R-11, RP-4, RP-6, I-1, I-2, I-4, E-42, V-62, AP-22, AP-28, AP-33, AP-34, AP-58, AP-98, F-2, F-3, MC-6, MC-7, C-7, IG-4, GI-10, VB-20, VB-43). Sedative and restorative stimulations were used one after another, 4-5 points (12-14 procedures) per day. The auricular points were used as well (26A, 22, 28, 32, 40, 55, 104, 130). The manual diagnostics, manual mobilization, post-isometric relaxation, osteopathic recoil techniques were used simultaneously to improve the functioning of common and external iliac and femoral arteries. After the medication 32 patients regained the erectile function. The same patients mentioned improved libido and better psychological condition.

Hence, the given research proved that the non-medicinal correction of psychogenic ED of patients with neurotic disorders was efficient and economically feasible. It can be recommended for practical use.

O.V. Endropov

**FUNCTIONAL INDEXES OF THE CARDIORESPIRATORY
SYSTEM FOR HEALTH IMPROVEMENT AND
REHABILITATION**

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In health-restoring medicine, medicinal physical culture as well as in rehabilitation of patients with cardio-vascular and lung diseases the well-known functional indexes (PWC 130; PWC 150; PWC170 and others) were investigated. For various age and social groups new functional indexes were elaborated.

Different age and professional groups including children, teenagers and sportsmen of inter-national level were introduced to approbation and practical use of some other indexes of aerobic productivity and anaerobic capabilities of man. These include: index of myocardial chronotropic reserve, myocardial reserve exhaustion coefficient, index of systolic work, the efficiency of blood circulation index, heart strain index etc.

The systolic work index (was determined as the ratio between the power of the performed physical strain and the working frequency of heart's contractions (FHC). Not distorting the picture of higher functional potential among children with high FHC at the state of relative rest, however, we do not regard FHC at rest. The type of reaction to the strain (normotonic, hypotonic and hyper-tonic) is estimated on the scale and the value of the efficiency of blood circulation index (Endropov O.V. 1980).

Some other functional indexes (pulse data at walking and running, the power of switching to anaerobic mechanisms at the muscular strain) enable us to reveal age differences, thoroughly evaluate general physical and special levels as well as to justify the effects of health-improving and rehabilitation measures at schools, universities and industrial enterprises

O.B. Fetisov

CONTROL OF THE FUNCTIONAL STATE OF HUMAN NEUROMUSCULAR AND MUSCULOSKELETAL SYSTEM

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At the present time WHO experts have determined four main factors influencing the human organism: genetic, ecological, the level of medical service and way of life. It was proved long time ago that the latter influences most significantly the level of health and compensatory-adaptive reactions of the human organism to the conditions of environment.

In the modern civilized world the man possesses numerous comforts. Technical devices have become more perfect and in many spheres of life physical labour practically completely has lost sense, converting in useless rudiment. This limitation of the number of movements determined by the way of life and peculiarities of professional activity has got a name – hypokinesia. The modern man successfully adapts to such state paying by his own health and destruction of those biological structures of the organism that have been improved during the whole human evolution.

Investigation of neuro-muscular system and influence of hypokinesia on the human organism led to the acute necessity to develop the system of prenosological control of the functional state of musculoskeletal system based on universally known and available non-invasive methods that have achieved wide spreading among physiologists, sports physicians and representatives of physical training professions. Unfortunately the popularity of such investigations has not touched classical medicine that in many cases treated consequences of the wrong way of life, the most dangerous component of which for the human organism is hypokinesia.

Longstanding investigations with the specialists of the Institute for biomedical problems in the sphere of functional diagnostics of neuro-muscular system allowed to single out several tests and combine them in one diagnostic complex where they all are carried out in definite sequence with the observation of relevant rules and safety measures. This bloc includes tests on determination of the flexibility of the spinal column and mobility of joints, determination of latent time of simple motor reaction, motor-coordinating functions, determination of the functional state of the muscles of shoulder girdle and prelum abdominale muscles. The

package of these tests has become one of the blocs of “Health Navigator” technology that has been successfully working during five years in sanitary-prophylactic institutions and medical exercises dispensaries of Moscow and some regions of the country. On the basis of the data basis from 35 thousand of the examined persons in Moscow model characteristics have been calculated for young men and women at the age of 14-18 years old, the part of the population on whose shoulders the civilization progress and reproduction of the further generations of children will fall. Mass examinations with the use of the given system allowed not only to collect the necessary material for the statistical analysis and estimation of objectivity of the conducted tests but also to conduct calculations of the age norms on each of the investigated characteristic according to the six-numbers rating scale. It allowed to substantiate a series of normative tables for young men and women of Moscow at the age of 14-18 years old. Systematic observations of the same individuals during the period from 2001 to 2006 allow to forecast the functional state of neuro-muscular system of the modern teenagers for the following several years at the condition that their way of life will remain at the permanent level. Longstanding investigations in this direction fulfilled by us with the analysis of the dynamics of somatic health allow with high accuracy to estimate the influence of hypokinesia on the somatic health of the developing organism.

Many-sided investigation of this problem and volumetrical data basis allow to make a conclusion about the high degree of objectivity not only of separate tests of the program but of the developed by the author the whole system of prenosological control and assessment of functional state of neuro-muscular system and musculoskeletal system with the use of non-invasive methods of examination.

T.K. Gaskina
V.N. Gorchakov
E.V. Melnikova
O.V. Gorchakova
Y.P. Kolmogorov

**LYMPHOTROPIC TECHNOLOGIES FOR ESTIMATION
OF MICROELEMENT HOMEOSTASIS FOR PROPHYLACTIC
AND HEALTH IMPROVING MEDICINE**

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The problems of prophylaxis and health-improvement are very actual for the practical medicine (Gelfand B.R. at al., 2003; Manns M.P., 2003; Pogodina V.A., 2004). Prophylaxis is now on that stage of the development when changing the notion about methods of prevention and rehabilitation of a disease is necessary (Tsukanov V.V., 2004). The arsenal of the modern measures makes it possible only to stop a disease at the stage of acute attack. All these facts predetermine a necessity to study the possibilities of the medicinal plants. According to the data of the leading phyto therapeutics, continuous prophylaxis of the acute attacks of a disease is more effective than prescription of the basic antirelapse medicines (Pastushenkov L.V. at al., 1995; Drozd G.A., 1997; Sokolov S. Y., 2000; Korsun

V.F. et al., 2003, 2005). Sometimes using the medicines has to be stopped because of arrived side effects. So the search of new alternative methods of prophylaxis, treatment and rehabilitation of a disease is considered to be perspective. Among them the health-improving lymphotropic technologies based on the concept of «lymphatic region» (Borodin Y.I., 1998, 2004) and nutritiology (Gorchakov V.N., 2000, 2004) attract attention.

At the present article the efficacy of the lymphotropic technologies is estimated on the base of dynamics of microelement compounds of the structures forming so named «lymphatic region» at the condition of dysfunction of the thyroid gland and its correction with original phytoadditives. Hypothyroidism model with per oral taking the day dose 3 mg/kg of mercazolilum was used. The roentgen-fluorescent analysis with synchrotron radiation (SR XRF) was used for the estimation of microelements at the biologic objects of «lymphatic region» (blood, lymphatic node, and organ). The SR XRF was carried out at the station of element analysis of SR Centre on VEPP-3 at Budker Institute of Nuclear Physics of SB RAS (Novosibirsk).

The disorder of the biological constants of organism is connected with the transition from health to disease and the restore of this disorder is the main aim of medicine (Baevsky R.M., 2000; Gutebrunner S., 2003; Gerke A., 2004). The microelements play the important role among the many constants because they possess polyfunctional qualities. The one of the significant element is selenium which ensures the antioxidant protection at the physiologic and pathologic conditions. This ability makes it alike with thyroid hormones. The character of interconnection between the content of selenium in the different structures of «lymphatic region» of thyroid gland confirms the existence of specific structural functional unit namely «lymphothyreostate». At the hypothyroidism selenium accumulates in the lymphatic node (+35%), the thyroid gland (+41%) and decreases slightly in the blood (-6%). Selenium comes from blood channel into interstice and then into thyroid gland and lymphatic node. After abolition of mercazolilum at the stage of rehabilitation without taking the phytoadditives selenium accumulates in the lymphatic node (+47%), decreases in the thyroid gland (-32%) and increases slightly in the blood (+4). The concentration of selenium in the thyroid gland during the period of rehabilitation without exogenous source of selenium is considered to deplete. Moreover using the original phytoadditives at the stage of rehabilitation leads to the increase of selenium in the lymphatic node (+104%), in the blood (+28%) and to the normalization it in the thyroid gland (-10%). At the stage of rehabilitation the distribution of selenium comes from interstice and thyroid gland into blood channel and lymphatic node. The intensity of this process enforces by receiving the exogenous selenium from phytoadditives. Exactly the lymphatic node in the «lymphothyreostate» accumulates selenium at the different structural and functional states of the thyroid gland. Redistribution of selenium between the structures is connected with the increase of antioxidant status, the optimization of sanitation effect of the lymphotropic technologies and the restoration of the euthyroid state of organism.

The obtained data are the base for developing the phytolymphonutritiology and for using the lymphotropic technologies in prophylactic and rehabilitation medicine

P. Klug

**EINSCHLIESSLICH, AUSGEWÄHLTER ASPEKTE BEI
DER BELASTUNGSADÄQUATEN ERNÄHRUNG UNTER
BESONDERER BEACHTUNG DES FETTSTOFFWECHSELS UND
SEINER ROLLE IM GRUND UND IM LEISTUNGSUMSATZ**

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Fragestellung:

Gelingt die Übertragung der positiven Effekte und Prinzipien der Medizinischen Trainingstherapie in das Medium Wasser?

Auch für Patienten mit Indikationen, für die MTT nur begrenzt geeignet ist wie

z.B.:

Adipositas

Osteoporose

M. Bechterew

Muskelinsuffizienz,

wobei zu bemerken ist, dass die Medizinische Aquatherapie als sowohl als Kombinations- und Ergänzungstherapie mit der Medizinischen Trainingstherapie als auch als Monotherapieform zu betrachten ist.

Gelingt es durch eine aufklärende Ernährungsberatung, bei Bedarf das Ernährungsregime der Patienten qualitativ und quantitativ umzustellen?

Methodik:

Leistungsdiagnostik im kardio/vaskulären und motorischen Bereich.

Training aller Hauptmuskelgruppen im über körpertiefen Wasser mit Auftriebshilfen im vertikal Verhalten. Gegen die Auftriebskraft und den Wasserwiderstand zum Teil mit Strömungsverstärkern. Bei durchschnittlich 2 Serien a 20 Wiederholungen.

Mit unterschiedlichen leistungsrelevanten Schwimmhantelgrößen.

Entspannung im tiefen Durchhang, Dehnung und Spielformen als inhaltliche Bestandteile in einer Therapieeinheit (60min)

Bei jedem Aufnahme Test und Re-Test finden Ernährungsberatungen statt

Ergebnisse:

Sind vorerst wie bei einem innovativen Konzept nicht anders möglich empirischer Natur.

Können aber in Auswertung der Patientenbiofeedbacks als äußerst positiv bewertet werden. In der weiterführenden Studie werden konkrete biologische Daten und Körperparameter in signifikanter Menge zu messen und auszuwerten sein.

N.E. Celfond
O.V. Shuvaeva
L.M. Uzvarik

**FUNCTIONAL FOOD "HARMONY VITA G" AS CORRECTOR OF
MACRO- AND MICROELEMENT STATUS OF THE ORGANISM**

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Chemical elements play important role in self-adjusted system of homeostasis. Stability of chemical compound is one of major and obligatory conditions of normal functioning of an organism. Deficiency, surplus or dysbalance of macro-microelements can be the consequence of many pathological conditions. Correction of macro-microelement status of an organism is possible due to use of functional foods (FF) as a source of mineral substances for dietic correction. Phytosorptional biostimulating complexes (PBC) influencing on the organism through lymphatic system have been developed in the Institute of Clinical and Experimental Lymphology SB RAMS within the complex program of rehabilitation medicine.

Resulting effect of the developed FF consist in three functions due to combined action of phyto- and sorbent components: 1. sorptional detoxication of the organism internal environment; 2. regulation of metabolism processes; 3. delivery of essential nutrients in bioaccessible form into the organism. FF "Harmony VITA G" is a source of macro-microelements providing an adequate level of daily consumption of Mn, Fe, P, Cu, Co, Ca, Mg, Zn, K.

The purpose of work was to estimate efficiency of the FF "Harmony VITA G" as the corrector of mineral salts dysbalance in an organism by way of research and quantitative definition of shifts in macro-microelement metabolism in biosubstrata (the blood whey, central lymph, tissues) in experimental models. Model 1: Medicamentous therapy of Diabetes Insipidus with Antidiuretic Hormone and support of phytocorrection in rats "rattus norvegicus" with phenotypical display of gene di (Diabetes Insipidus). Model 2: 2-monthly hypodinia of rats of presenile age and 2-monthly hypodinia of presenile rats with administration of the FF "Harmony VITA G".

Methods: Atomic – emission spectrometry with arc excitation of spectra was used to definition of chemical compound of biological substrata. Procedure of the analysis included preliminary mineralization of test by dry ashing way. Definition was spent for 12 elements (Al, Ba, In, Ca, Cu, Fe, Mg, Mn, P, Pb, Sb, Zn). Model 1: Chemical compound of the blood whey and central lymph was defined. Model 2: Chemical compound of the blood whey, central lymph and hip adductor (muscle) was defined.

Results: Model 1: The obtained results testify that micronutrient balance between the lymph and blood is broken severely in animals with congenital defect of hydro - electrolyte homeostasis rattus norvegicus that leads to disturbances of immune homeostasis and drainage – detoxication properties of lymphatic system. Combined use of medicamentous therapy and phytodietcorrection promotes normalization of microelement balance

between the lymph and blood providing restoration of the functional status of lymphatic system.

Model 2: Redistribution of the basic macro-microelements between liquid biosubstrata and tissues is observed in conditions of hypodynamia, so steady growth of Ca, Mg, Fe, P concentration is noted in the lymph and whey of blood with simultaneous significant decrease in the maintenance of these minerals in muscles. Phytodietcorrection promotes normalization of mineral structure of muscular tissue, maintenance of the muscles functional activity in condition of age hypodynamia.

Conclusions: Active correction of feed structure allows to solve the problem of normalization of the macro-microelement status of an organism with use of the developed functional foods in various pathologies.

V. Golubchikov

THE REGULATED GAS MEDIUM WITH A SET OF NANOPARTICLES GENERATED BY THE SOLID FUEL COMPOSITION AS A METHOD FOR PRODUCING ECO-VEGETABLES

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A new technology of producing eco-vegetables with utmost low contents of – in the first place - nitrates has been elaborated, namely the technology of growing up hothouse vegetables and greenery cultivars for diet food. The technology is based on the generation of a special gas medium in a closed space. The gas medium is presented by an aerosol, i.e. by a mixture of gases and of solid particles of various chemical compounds. The said medium is generated by a special solid fuel generator charged with the condensed high energetic system which after ignition develops incineration process on the principle of self-propagating high energetic synthesis. As a result, plants being for two hours in the regulated gas medium, receive all substances as nanoparticles of inorganic compounds of B, Mo, Mn, Mg, Cu and others which are necessary for the metabolic activity. The gas composition changes also: fractions of nitrogen and of carbonic acid gas increase. The contents of oxygen and of water vapours are controlled, too. All this enables to drastic activate the gas exchange between plants and the medium.

Experiments have been conducted on a number of cultivars: onion, lettuce, dill and parsley. Investigations were fulfilled in film-covered soils under temperature, humidity and light exposure conditions recommended for these cultivars.

Seeds of the said cultivars were planted into the soil comprised of peat and of wooden sawdust (50:50). At the commencement of experiments, a sample of the soil was taken for the identification of nitrate contents. In the course of experiments, mineral fertilizers

were not delivered through the root system of plants, the plants were only sprinkled with water taken from the 87 meter-deep water well. Plants were not fed additionally with water solutions of mineral fertilizers neither through the foliage nor through the root system. Instead of all this, the regulated gas medium was daily created by the incineration of a certain mass (0,5 g per 1 m² of greenhouse area) of the mineral complex.

During the vegetation process – in 20 days and in 40 days – the grown up plants were examined on nitrate contents. Nitrates were chosen as a base since their mass fraction is maximal. The alteration in the nitrate concentration was proportionally correlated to the concentration of heavy metals, of toxic substances and of radioactive compounds.

Results obtained in an accredited food testing laboratory showed: the nitrate contents in product samples were 10-20 times lower as compared to the approved sanitary standards.

The experiment on the use of the regulated gas medium with special properties was repeated thrice. Results of analyses on nitrate contents coincided almost completely. The nitrate contents in vegetables produced according to the mineral complex technology are shown in the Table 1.

Table 1.

Nitrate contents, mg/kg	Cucumbers		Parsley		Spring onions	
	Standard	Fact	Standard	Fact	Standard	Fact
Variant 1	400	56,7	2000	231	800	14,6
Variant 2	400	42,4	2000	126	800	73

Thus, the technology of producing eco-vegetables characterized by the 10-20 time-lowered contents of harmful, toxic and radioactive substances and of heavy metals, by means of the use of the regulated gas medium generated by the special solid fuel generator has been created and explored on a number of cultivars.

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T.K. Gaskina
O.V. Gorchakova
Y.P. Kolmogorov

**METHODEN DER SOG. EFFERENTEN DIAGNOSTIK FÜR
BEGRÜNDUNG NEUER VERFAHREN FÜR PRÄVENTIVE UND
REHABILITATIVE MEDIZIN**

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Die gesundheitlichen und prophylaktischen Technologie mit den liegenden zugrunde Prinzipien der prophylaktischen Lymphologie (Borodin Y.I., 2002–2006) und Lymphonutriziologie (Gorchakov V.N., 2003, 2005) werden hochgeschätzt. Die grosse

Bedeutung haben die Methoden fruehzeitiger Diagnostik, die sowohl einen Koerperstatus als auch die Praevention-, Therapie- und Rehabilitationseffektivitaet bewerten lassen. Man sondert die folgenden Methoden der «efferenten» Diagnostik aus: die Bioelektrographie (auf Grund der Kirlianeeffekt) (Korotkov K.G., 1995, 1998, 2001; Ignatyev N.K. u. a., 2000) und dunkelfeldige Diagnostik extravasiertes Blutes (Kudryashov V.V. u. a., 2003). Es ist grundsaeztlich, morphologische Untersuchung anzuwenden und der «efferenten» Diagnostik gegenueberzustellen. Es gab die Verbindung zwischen strukturell-funktionellem Zustand der lymphatischen Region der Organe, einer Eigenart des elektrisch induzierten peripherischen Leuchtens und einer Blutmorphoreologie bei der Endotoxikose oder Endotoxikosekorrektur zu verstehen.

Durch der «efferenten» Diagnostik ist strukturell-funktionellen Zustand lymphatischer Region bei der toxischen Hepatitis untersucht worden. Die Endotoxikosekorrektur ist mit den bioactiven Phytomittel («Lympholife», «Lymphosan», «Lymphovit», «Harmonie Vita» u. a.) durchgefuehrt worden. Der lymphatische Regionbau (die Leber und der Lymphknoten), die Kirliandarstellung und die Blutmorphoreologie sind zeitabhaengig. Eine Densimetrie demonstriert eine Veraenderung der Kirliandarstellungsleuchtkraft und Kirliandarstellungsflaeche bei der Endotoxikose (die toxische Hepatitis). Die Intensivitaet einer Kirliandarstellungsleuchtkraft bleibt lange Zeit niedrig: 1 Tag – $0,222\pm 0,041$; 7 Tag – $0,261\pm 0,042$; 14 Tag – $0,372\pm 0,049$. Obwohl gibt es eine Erhoehungstendenz zum Versuchende, ein Kontrollwert ist hoeher ($0,394\pm 0,036$). Aehnlich veraendert sich eine Kirliandarstellungsflaeche. Diese Angaben weisen auf eine superergysche Reagierungstyp hin (Krashenyk A.I., 1996), dass einen pathologischen Prozess in der lymphatischen Leberregion kennzeichnet. Eine Phytomittelleinnahme wechselt positive den Energieinformationsbau einer Kirliandarstellung bei der Endotoxikose. Eine positive Veraenderung besteht im schnellsten Erreichen einer Densimetriekon trollwerte (1 Tag – $0,216\pm 0,029$, 7 Tag – $0,261\pm 0,042$, 14 Tag – $0,372\pm 0,049$). Eine Phytomittelleinnahme induziert einen Wechsel der Reagierungstyp zum 14 Tag (von der superergysche Typ zur normergyschen Typ).

Die Untersuchung des extravasiertes Blutes durch der dunkelfeldigen Diagnostik zeigt die dem toxischen Leber- und Lymphknotenbefall bedingten schnelle Erythrozytagglutination, schwache Blutfluiditaet, die Leukozytose. Eine lange Phytomittelleinnahme verstaerkt eine Lymphodraenage, verbessert eine Blutheologie, erhaelt die Blutebensstuechtigkeiteit in vitro, vermindert die Wirkung den unguenstigen Faktoren.

Die Kirliandarstellung und Morphoreologie extravasiertes Blutes sind empfindlichen und sachlichen Bewertungsmethoden der morphofunktionellen Veraenderungen der Lymphoregion bei der Endotoxikose und der Endotoxikosekorrektur. Die stellen einen allgemeinen biodynamischen Koerperzustand dar. Unsere Angaben lassen von der Rolle des Lymphsystems in der Bildung informatisch-energetisches Koerperpotenzials nachdenken und neuen Methoden in der prophylaktischen Medizin mit der Gesundung per Lymphsystems schaffen

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CYCLE METHOD OF ORGANIZATION OF HEALTH-IMPROVING ACTIVITIES

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The investigation of influence of various physical regimes on organisms of tested persons shows that single and twice repeated exercises per week serves just as a tool for active rest and organization of leisure. It does not give forming effect upon the reserve possibilities of the man's organism. From the other side, the high social value of systematical whole-year exercises and modern correct orientation of a part of population to the mainly self-dependent training compel to seek new methods of organization of health-improving activities.

We have elaborated and practiced so-called cycle method of organization (or the method of health-improving gatherings). It presents the interchange of health-improving cycles, continuance of each cycle is 4-5 weeks, with the periods of intercycle self-dependent exercises. In each cycle, repeated 3-4 times a year, the exercises are carried out 3-4 times per week at the careful medical control allowing to determine the level and dynamics of functions of man's organism, in other words, to denote the individual "route of health". Attraction of groups for healthy-improving cycles can be combined with the theoretical trainings (lectures, discussions, seminars), contributing to healthy way of life. In periods of the rest it is implied the self-dependant exercises according to the individual recommendations regarding functional conditions, the level of callisthenics, fill-in-the-blank data.

During the health-improving gatherings, the condition of man' organism is offered to estimate not in accordance with the diagnosis of disease, but in accordance with the definite quantitative physiological measures which characterize the individual adaptation to physical activities. Further the effectiveness of health-improving activities is estimated by dynamics of testing results.

It is well-known, the most evident influence on the development of the cardiovascular and respiratory systems as well as on the increase of exercise performance and immunoprotective strength of man's organism shows the exercises performed in aerobic regime, in other words, when in organism it is mounted the balance between the oxygen consumption and expense of energy due to carbohydrates and fat oxidization. Due to aerobic resources of energy-supplying it is carried out the prolonged work with the low intention that is directed to general endurance. That is why for improvement of health we use conscious stimulated usual kinds of motional activities (walking, running) and other kinds of cycle character (skiing, swimming, etc).

On the whole the cycle method of organization in comparison with the whole-year (traditional), has a number of advantages: achievement of higher (12-14%) physical and functional results; definition of individual "route of health" and lightening in

control of their realization; more effective use material base and staff in sport complexes; systematization of promotion of knowledge of healthy life-style. The cycle method of organization of health-improving work stimulates spontaneous physical activity of a man advancing its capacities to optimal one. Also it was noted the increase of interest of tested persons to independent filling of results (starting, current, final) during the examinations and testings by preliminarily elaborated schemes, notebooks of self-test and cards for registration of physical activities. The whole-year method of exercises organization has low health-improving value as a result of reduction of the influence effectiveness because of adaptation of man's organism to the repeated work.

The offered form of physical, health-improving work – the cycle method – is the new model of prophylaxis in organized groups (schools, colleges, universities, companies, etc), the practice of which is conducive to recovery of man's health and increase of his social activities.

L. Kacugin

SSAO INHIBITOR SEMICARBAZIDE AS A POTENTIAL DRUG FOR HUMANS

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Semicarbazide-sensitive amine oxidase (SSAO) denotes a family of copper-dependant glycoproteins. Significant levels of the enzyme are present in human plasma. The main site for SSAO is within the vascular wall. The properties of Plasma semicarbazide-sensitive amine oxidase (SSAO) have not been well defined . The enzyme may be involved in the deamination of circulating biogenic amines. The enzyme activity was found significantly increased in blood and tissues in some pathological conditions. The enzyme activity has been reported to be elevated in diabetes mellitus in accordance with the severity of the disease. The mean specific activity of SSAO was significantly elevated in the group of patients having prostate cancer with skeletal metastases. SSAO activity correlates with serum VEGF levels in lung cancer patients. SSAO is also known to be up-regulated in inflammation. SSAO is involved in the formation of formaldehyde, which results from deamination of methylamine. Increased SSAO-mediated deamination may initiate endothelial injury. Vascular endothelial injury also is a major contributing factor to burn damages (secondary necrosis), atherosclerosis, diabetic damages in eyes and the kidneys, peripheral nerves, as well as other cardiovascular disorders. SSAO is involved in cellular damage through the formation of reactive aldehydes, hydrogen peroxide and ammonia from endogenous substrates. Formaldehyde can be generated endogenously. Formaldehyde, an extremely reactive compound. Both formaldehyde and hydrogen peroxide are known to be toxic. Hydrogen peroxide is involved in various oxidative reactions, and can itself

be transformed into a hydroxyl free radical. Formaldehyde, however is more toxic than hydrogen peroxide. The subsequent generation of formaldehyde and hydrogen peroxide may be responsible for the acute and chronic cellular damage. It also can cause pain. Free radicals are capable to modify chemical structures of proteins and nucleic acids, and change their functions. These highly reactive aldehydes may cause DNA injury. Conventional drugs and vitamins (without SSAO activities) have been unable to prevent the development of all complications caused by oxidative stress. However SSAO inhibitors have been shown to prevent such toxicity.

The enzyme inhibitor Semicarbazide is known to interact easily with compounds that contain an aldehyde group. Many essential pyridoxal-containing enzymes are thus inactivated by semicarbazide. All SSAO enzymes are inhibited irreversibly by semicarbazide. The first experimental study in humans were conducted in 1957-1962 in Russia as open pilot trials (cancer semicarbazide-cadmium therapy and experimental burn treatment). Blocking the SSAO activity by semicarbazide reduces the development of an inflammatory reaction). It also can reduce pain. The SSAO-inhibitors also appears able to protect endothelial cells against toxic effects of free radicals. Semicarbazide can protect against the progressive vascular complications caused by oxidative stress. Clinical use of semicarbazide gives the evidence that an inflammatory reaction can be reduced by blocking the enzymatic activity of the SSAO. Semicarbazide can reduce inflammatory response in acute burn wounds. The formation of secondary necrosis can be prevented with semicarbazide. This "proof of principle" identifies semicarbazide as a potential drug for humans.

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PATOGENETISCHE BEGRÜNDUNG DER KLINISCHEN ANWENDUNG DER VERSCHIEDENMETALLISCHEN MEHRNADELFÖRMIGEN „APPLIKATOREN LYAPKO“

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In der Arbeit studierte man Dynamik der Hauptzellenpopulationen von immunkompetenten Zellen (B-Lymphozyten (CD22), der die Markierungszeichen (CD4, CD8, CD16) tragenden Zellen im Laufe der Anwendung der verschiedenmetallischen mehrnadelförmigen Applikatoren Lyapko, die nicht nur mechanische Einwirkung auf die Haut gewährleisten, sondern auch örtlichen mikrogalvanischen Einfluss, der die Elemente des assoziierten mit der Haut lymphoiden Gewebes berührt. In der Untersuchung nahmen 50 gesunder Freiwilligen von beiderlei Geschlecht der Alterstufen von 16 bis 24 Jahre – Studentender medizinischen Universität teil. Alle Freiwilligen nahmen physiotherapeutische

Prozeduren in der Form der Applikationen durch verschiedenmetallische Applikatoren Lyapko ein. Applikatoren von der Fläche 1200 cm² stellte man in die Rückengegend auf, sowie Applikatoren, die ganz und völlig Fußsohlengend der beiden Füßen überdeckten. Kurdauer der Einwirkung machte 10 Prozeduren aus: je eine Prozedur von Dauer 20 Minuten täglich.

Die Zellenziffer laut der Anzahl der Lymphozyten, die die Markierungszeichen CD expressiveren, schätzte man durch die Methode indirekter Immunofluoreszenz mit der Anwendung der monoclonalischen Antikörper der Firma „Diacclone“ ein. Alle Ergebnisse sind der statistischen Bearbeitung für gezwungene und ungezwungene Beobachtungen unterworfen. Die Wahrheitstreue der Verschiedenheit bewährte man nach dem Kriterium Stjudent, die Wechselbeziehung zwischen den Parametern – mit Hilfe der Koeffizienten linearer Korrelation.

Die Analyse der Dynamik der Anzahl von immunkompetenten Zellen im Blut der Freiwilligen entdeckte Haupttendenz für CD22, CD4, CD8 und CD16 – positiver Populationen: der Anwachs der Ziffer genannter Zellentypen nach jeder Prozedur der Applikationstherapie wie am Anfang, so auch am Ende der Kur.

Abgesehen von genannten scharfen Änderungen wird Regulatorverhältnis CD4/CD8 auf gleichem Niveau erhalten. Die entdeckte Tatsache zeugt von physiologischer Eigenart der Einwirkung der Applikationstherapie, die keine wesentliche Dynamik der Hauptregulatorparameter des ganzen Immunsystems hervorruft. Aber von uns entdeckte Dynamik der Zellenpopulationen braucht weitere Untersuchung der feinen Mechanismen von schnellen Populationsverlagerung der immunkompetenten Zellen nach den Vorstellungen der Applikationstherapie. Man muss annehmen, dass als führende von ihnen sind Mechanismen der Einstellung der Energie und des Anlaufens der Apoptose für einige Zellenclonen – einerseits und Stimulierung für anderen Clonen – andererseits. Im Zusammenhang damit wird die Untersuchung der Markierungszeichen der Costimulationssysteme und der Zytokinen in Verbindung mit dem Studium der biochemischen und hormonalen Parameter als Gegenstand der Untersuchung in unseren weiteren Arbeiten sein.

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**FOOD FOR PRESERVATION OF HEALTH IN CHILDREN AND
YOUNG STUDENTS**

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The perennial effective solution of applied hygienic problems of nutrition in children and young students was carried out at regional levels: in Siberia, in the north, south and in the center of Krasnoyarsk territory.

In the research we used up-to-date hygienic, social-hygienic and statistical methods.

Comprehensive complex hygienic characteristics and estimation of nutrition in children under school age, school age and young students in education institutions differing by catering pattern were obtained. Hygienic estimation of actual nutrients' consumption revealed a 15–30% gap between energetic value of ration and physiological requirements in nutritional energy. It was accompanied by misbalance of ration, irregularities of home and organized meals. Insignificant deviations were observed only in children visiting educational institutions (CRI). The mean value of nutrients' intake fluctuated in relation with parts of Krasnoyarsk territory, age, education level of parents, children and young students, and form of public catering. In all the groups the ranking of nutrients' availability revealed deficiencies. Misbalance in nutrition was proved by biochemical analysis (blood, urine, hair). Misbalances in calcium and iodine were observed in all the regions, misbalances in F and Fe – in the north, selenium and iodine – in all parts the Krasnoyarsk territory. Occurrence of low concentrations in children constitutes for: calcium 27%, iron 14.0%, copper 3.6%, zinc 9.6%, selenium 100%, Table 1.

Table 1. Occurrence of low concentrations microelements and vitamins in children and young students (%)

Localities	Microelements and Vitamins								
	iodine	vit.C	vit B ₁	Ca	Fe	Cu	Se	Zn	Co
Village	61,3	73,2	50,0	23,9	13,9	3,0	100	5,1	100
City	84,3	79,8	73,9	31,6	12,1	5,5	100	10,8	100

The study showed that 74.2% of examined children suffer from iodine deficiency. The frequency distribution of iodine content in the urine points that severe iodine deficiency (less than 20 µg/L) is observed in 15.2% of the children. Moderate deficiency (20–49 µg/L) is found in 21.4% and light (50–100 µg/L) in 37.5% of the examined children. Median of iodine content in urine constitutes 70 µg/L that corresponds to a light degree of iodine deficiency by WHO classification. There was no difference in iodine content medians between boys and girls ($P < 0,001$). They constitute 70.0 and 70.7 µg/L respectively. Iodine content medians are greater in the urban localities (Minusinks – 95.4 µg/L, Kansk – 99.5 µg/L, Achinsk – 69.2 µg/L, Krasnoyarsk – 70 µg/L) than in the country places (Shushenskoe – 31.4 µg/L and Krasnoturanskoe 31.4 µg/L). Occurrence of enlarged thyroid gland (goiter of I–II degrees) constitutes 29.6%. As the disturbance in intellectual development is characteristic of any level of iodine deficiency a significant medical and social problem arises.

This pattern of nutrition can cause higher risk of metabolic disorders and the retention of acquired irrational skills of nutrition can provoke health decrease in the future. The obtained data prove advantages of CRI, schools, universities which promote healthy nutrition and provision of adequate amount of food substances, energy for maintenance of health.

For hygienic improvement of structure, quality and security of rations we developed scientific background for effective regional hygienic models of optimization of nutrition and health of children and young students.

Acknowledgement. The work is supported by the grant of the Russian humanitarian scientific fund 66003 a\T

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**LYMPHOTROPIC TECHNOLOGIES AT THE CHRONIC
HEPATITIS IN EXPERIMENT AND CLINIC**

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Lymphatic system plays the important role in development of many diseases. Infringement of its drainage abilities and a state of an interstitial connecting tissue occupies a significant place in a pathogenesis of endotoxiosis. Therefore studying of mechanisms of infringements of lymphatic system with a substantiation of lymphotropic correction and prophylaxis is highly actual.

It was found out by us that the toxic lesion of a liver is accompanied by accumulation of products of lipid peroxidation in the central lymph, and also decrease of α -tocopherol content which is compensated by increase of hepatocuprein that testifies about lymphatic resetting of the last one and replacement of α -tocopherol in reactions of lipid peroxidation in conditions of an oxidative stress. Reduction of function activity of liver after chronic toxic influence is activated by enteral usage of sorbents (enterosorbents, enterosorbent plus lipolytic enzyme lipoorizine, combination of enterosorbent and an aqueous extract of vegetative polyphenolic compounds) that is confirmed by the decrease of an expressiveness of serum markers of damage of a liver, augmentation of rate of microsomal metabolism of xenobiotics, decrease of activity of lipid peroxidation in the central lymph, plasma and liver microsomal fractions.

On the basis of experimental investigations we developed approaches to correction of drug lesions of a liver at patients with pulmonary tuberculosis, method of an assessment of haemolymphocirculation in liver, method of lymphotropic therapy of patients with chronic virus hepatitis.

Data obtained as a result of the present research allow us to set the points of the pathogenic applications of lymphotropic-sorbent technologies up at a chronic hepatitis. It is necessary to use the methods of correction rendering sanogenic influence via lymphatic system and reacting in all parts of lymphatic region of a liver in treatment of patients with chronic hepatitis. Enterosorbents and sorption drugs influence a drainage of tissues, carry out a prosthetic repair of function of lymphatic frames, sorb toxins and interfere their enterohepatic circulation, reduce metabolic overload on organs of metabolism and excretion (first of all, liver). Application of a complex of polyphenolic compounds as lymphostimulators and lymphocorrectors influences on drainage and detoxicative

function of lymphatic system, prevents development of an oxidative stress. Method of regional lymphotropic therapy provides direct transfer of drugs to liver, intensifying pharmacodynamic effects of medicinal preparations, and also stimulates a lymphatic drainage of tissues of a liver.

Complex application of methods of lymphsanation provides supporting of homeostatic constants due to introduction in cells of a liver first of all antioxidants and erasion of decomposition product and a metabolism, carrying out perfusion of cells. The lymphatic system in such statement of a question is not only one of components of the macroorganism, but the effective instrument in hands of the clinician. All-level influence on lymphatic system activates sanogenic processes in lymphatic region of the affected organ, due to modulation of antioxidant protection, erasions of highreactive oxygenated products of disintegration, reduction of optimal conditions of functioning of the cascade of enzymatic reactions in a cell. It creates new prospects of treatment and prophylaxis of various diseases, but with the uniform common approach from position of clinical and preventive lymphology

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PHARMACOLOGICAL ACTIVITY OF FLAVONOID-CONTAINING PLANTS

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The actual aspect of pharmacognostic investigation is relationships between chemical and pharmacological properties of biologically active compounds of medicinal plants.

The flavonoids are the well-known biologically active compounds of the medicinal plants which are used as antioxidative, hepatoprotective, nootropic, antimicrobial, antiinflammatory, spasmolytic, diuretic preparations. So, phytopreparations on the basis of rutin (*Sophora japonica* L.), hyperoside (*Hypericum perforatum* L.), datiscin (*Datisca cannabina* L.), ginkgetin (*Ginkgo biloba* L.), diosmin (*Citrus limon* Burn.), silybin (*Silybum marianum* (L.) Gaertn., dihydroquercetin (*Larix sibirica* Ledeb.) are wide used in medical practice.

In the course of our investigations there were studied the possibilities of the use of the flavonoids for purpose of the standardization of *Hypericum perforatum* L. herbs and *Artemisia dracunculus* L. herbs. Neurotropic activity of phytopreparations also were studied.

Hypericum perforatum L. (St. John's wort) is well-known plant in medicine. *Hypericum perforatum* herbs is used as antibacterial, antiinflammatory, regenerative and photosensitizing pharmaceuticals. In some countries St. John's wort is used in the treatment of depression. Various scientists explain the pharmacological effects on the central nervous system by the influence of different biologically active compounds: flavonoids (rutin),

anthracene derivatives (hypericin, pseudohypericin), floroglucinols (hyperforin).

From *Hypericum perforatum* herbs the dominant flavonoids (rutin and hyperoside) and also chlorogenic acid and hyperforin there were isolated. There work out the methodics of qualitative analysis of *Hypericum perforatum* herbs and preparations by means of TLC. There was motivated the expediency of the use of standard samples of hyperoside and rutin for purpose of the standardization.

Artemisia dracunculus L. (estragon, linear-leaved wormwood) is perennial herbaceous plant. It is known, that the *Artemisia dracunculus* L. herbs contain the flavonoids, phenylpropanoids, coumarins and isocoumarins.

The qualitative analysis of this plant and their preparation (tincture) was performed by the method of TLC-analysis. This method is based on detection of two dominant flavonoids - estragonside and pinocembrin which are characteristic for this plant. During the study we have isolated the following flavonoids - estragonside, tarkhunaside, naringenin, pinocembrin, annagenin, phenylpropanoids – methyleugenol, cichoric acid and phenylcarbonic acid – ρ -hydrobenzoic acid. Chemical elucidation of isolated compounds was determined by means of UV-, $^1\text{H-NMR}$ -spectroscopy, mass spectrometry and several chemical transformations (acetylation, methylation, enzymatic and acid hydrolysis). Seven identified substances were isolated from estragon for the first time, estragonside, tarkhunaside, annagenin being to the new natural compounds.

Investigation of moving active and studing behaviour of animals were found that tincture of *Artemisia dracunculus* L. herbs influence on the increasing of vertical activity, tincture of *Hypericum perforatum* L. herbs cause the increasing of studing activity. Among number of the phytopreparations containing the flavonoids the greatest antidepressive activity in tincture of *Hypericum perforatum* L. herbs was founded. The neurotropic activities (antihypnogenic, nootropic properties) of tincture from *Artemisia dracunculus* L. herbs, tincture of *Hypericum perforatum* L. herbs were determined by means of the animal experiments. There was shown that the hyperoside causes the neurotropic activity of preparations from *Hypericum perforatum* L. drugs.

Therefore, the flavonoids make an important contribution to total effectiveness of studied medicinal plants.

N. Astakhov
L. Astakhov

: **ENTSCHLACKUNGS- UND REINIGUNGSKURS**

:
: *Berlin, Deutschland*

Durch eine Trinkfastenkur reinigt sich zunächst der Körper, das führt zu einer verstärkten Feinfühligkeit. Sie wird durch Übungen sehr intensiviert und erweitert, und jeder kann seinen eigenen Körper tiefer kennen und bewußter spüren lernen.

Diese Reinigung wird gefördert durch mentale Übungen, Visualisierungen, durch

direkte zielgerichtete Konzentration unserer Aufmerksamkeit. Dadurch wird das Immunsystem unterstützt und die Regeneration gestreßter Zellen und Körpersysteme aktiviert.

Körpertgifte und Schlacken, die durch Streß, Angst und Schock entstehen werden durch Freude, Entspannung, Wohlfühlen, Weite erleben usw. aufgelöst. Das trainieren wir so, dass wir diese effektiven Methoden mit in unseren Alltag nehmen und für unsere Arbeit einsetzen können.

Bei den Übungen und den spannenden Einführungen in spirituelle und physikalische Zusammenhänge bekommen wir eine Ahnung vom Biofeedback unseres Körpersystems, welches die Grundlage für das Hellsehen ist. Ein wichtiger Schwerpunkt ist die Analyse des eigenen energetischen Systems, um die Heilungsmöglichkeiten des bioenergetischen Systems besser nutzen zu können (z.B. bei unseren Kindern oder Kunden)

Hohe Sensibilität reicht nicht aus – wir können sie effektiver einsetzen, wenn wir sie auch verstehen. Unser Organismus hat viel mehr Weisheit als unser Intellekt (Bewußtsein, Intelligenz). Daher trainieren wir den bewussten Dialog durch stellen der richtigen Fragen und verstehen der Antworten.

Unsere Feinfühligkeit durch einen entschlackten Körper und durch dieses spezifische Training ist, gerade für uns als Feng Shui Berater, ein wichtiges Instrument für erfolgreiches arbeiten.

1. Ziel des Kurses ist eine Reinigung des Organismus auf folgenden Ebenen:

- der mentalen
- der geistigen
- der energetischen
- der physischen Ebene.

Alle diese Arten der Reinigung können einzeln oder zusammen durchgeführt werden, da sie den gegenseitigen Einfluss der verschiedenen Seiten des ganzheitlichen Organismus des Menschen widerspiegeln.

2. Angewandte Technik bei der Durchführung des Kurses:

- Korrektur der energetisch-informativen Struktur;
- mentale Arbeitsmethoden zur Wiederherstellung der Funktionen der Selbstregulierung des Organismus;
- meditative Praktiken;
- natürliche und volksnahe Methoden der Reinigung;
- Trinkkurs nach Otto Buchinger.

3. Grundlage für die Durchführung des Kurses: gemeinsamer Aufenthalt der Gruppe weit von der üblichen Umgebung entfernt. Dies erlaubt ein Umschalten des Bewusstseins (sowohl des Menschen als auch des Organismus) auf die allseitige Reinigung und Wiederherstellung der Aktivität des Organismus.

4. Erfahrungen bei der Durchführung eines Reinigungskurses

5. Während des Kurses erlernen die Teilnehmer:

- einige natürliche Methoden der Selbstregulierung und Reinigung des Organismus;

- Prinzipien, die Reaktion und den Zustand des Organismus auf der Basis des Bio-Feedbacks zu kontrollieren;
- energetische und energetisch-informative Methoden der Selbstregulierung des Organismus.

S.G. Binat
S.M. Zaharchenko
S.V. Ovsij

.....
: **SENSITIVE RECOGNITION OF TRUTH**
.....

.....
: *«Ukrainian National Society of Natural Medicine», Kiev, Ukraine*
.....

The person witnessing lies and mistakes constantly asks himself, what to do if the whole area of a human body hurts, how to find out what is wrong?

- Some treatment techniques are offered. How to find out, which of them is more effective?

- When clean water is needed: where to dig a well and where it water will be better?

- When we want a rich crop what plants are to choose for the given field?

- If there is no effect from treatment how to pick up necessary medicines for a concrete patient?

- How to restore recipes of the ancient medicine? And many, many other questions.

How to feel and recognize the truth? It is possible and rather simple! The nature and wisdom of the ancient give us a hand.

For this purpose it is necessary to observe some rules: a) to observe cleanliness of ideas and thoughts; b) to contain a physical body in a state of health; c) be in harmony with environmental space, a nature; d) completely to open 7 feelings given by the nature: hearing; touch; sight; taste; sense of smell; mind, common sense and intuition or synthetic feeling; e) to be trained in sensual recognition by the present technique.

The modern science proved that any subject possesses both a “live”, and a “lifeless” nature and the some energy substance that accordingly produces radiation and vibration.

It is experimentally proved that any idea or event has some energy, hence, produces a superthin radiation. People can be taught to “register” this radiation.

Sensitive recognition of truth is ability to register volume and quality of a field to perceive vibrations and energy and to decipher their internal essence.

In the process of learning to recognize those signals, the future operator should determine, which part or a zone of his body is ready to reception and sensitive recognition of these signals; usually the “reception zone” is the person’s skin or his palm.

It is necessary to take the following as the basis of the conclusion:

- Positive events, pleasure, love, good things, ideas, feelings, and also a state of health, radiate easy, elastic and cool energy.

- Problems with health, emotional experiences, despondency, negative result of past or future events etc., radiate heat, a pressure and strain.

Chronic diseases, inflammatory processes, jealousy, fear, suffering, conflicts, scandals, accidents etc., radiate intensive heat or fever and burden.

- Cancer or incurable diseases, crash of the enterprise or death, the condition of a failure and a cold radiation.

The answer to the question is “yes” - will give sensation of elasticity and increase of a power stream, “is not present” - a cold or a failure, in any case the power stream will not be felt.

Application in medicine - early diagnosis of diseases of bodies and systems when there are still no signs of illness;

- Selection of techniques of treatment; selection of medical products; treatment of bodies and systems of a human body.

Application in pharmacology - an opportunity of definition of necessary components, their structure and their parity for a created medicine that essentially accelerates process of its creation. Economy on experimental researches in time and means;

- An opportunity beforehand to determine quality of a created preparation and its degree of use;

- An opportunity of definition of compatibility of a created preparation with the certain types of people and illnesses. Compatibility with other medical means and techniques of treatment;

- An opportunity of selection of a dosage and individual updating of medical products.

E. Boschmann

COLON-HYDRO-THERAPIE (DICKDARM-THERAPIE DURCH REINIGUNG MIT WASSER)

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Die meisten Menschen leiden an gestörter Symbiose, der so genannten Dysbiose-Störung der natürlichen Lebensgemeinschaft von Bakterien und Mensch. Durch sterilisierte und denaturierte Lebensmittel, fehlerhafte Ernährung und Lebensweise, Umweltbelastung, Gifte und Missbrauch von Medikamenten wird das Gleichgewicht zwischen Mensch und Bakterien zerstört. Die Folge ist das zunehmende Erlahmen der Abwehrkräfte im Organismus.

Mehr als 30% der Bevölkerung haben einen gestörten Stoffwechsel durch das Übergewicht Krankheitsfördernder Darmbakterien. Sauerstoff gelangt nicht mehr in ausreichender Menge ins Gewebe. Gift- und Abfallstoffe werden nicht mehr schnell genug abgebaut und ausgeschieden. Es kommt zwangsläufig zur „AUTO-INTOXIKATION“ (Selbstvergiftung des Körpers). Krankheiten: wie Infektionen,

Entzündungen, Rheuma, Polyarthritis, Akne, Psoriasis, andere Hauterkrankungen sowie hoher Blutdruck, Migräne, Allergien und viele andere Beschwerden werden heute einem nicht funktionierenden Darm zugeordnet. Immunvorgänge im menschlichen Körper wurden lange Zeit vom Standpunkt der Infektion gesehen. Inzwischen ist jedoch hinreichend bekannt, dass eine enge Verbindung zwischen Stoffwechselfvorgängen und Immunsystem besteht. Das Immunsystem befindet sich zu 80 % in der Wand des Dünn- und Dickdarmes. Immunglobuline (Eiweißkörper mit Abwehreigenschaften) werden zum größten Teil im Darm gebildet. Die Schleimhaut des Dickdarmes ist das erste und wichtigste Verteidigungssystem gegen Giftstoffe. An zweiter Stelle folgen Leber, Nieren, Lymphe, Lunge und die Hautoberfläche. Prof. Otto Warburg (Nobelpreisträger 1931) hat bereits damals erkannt, dass ein geschwächtes Immunsystem durch einen gestörten Stoffwechsel im Darm die Entstehung und Ausbreitung von Krebszellen wesentlich begünstigt. Weite Teile der Bevölkerung unserer zivilisierten Welt leiden an Obstipation (Verstopfung). Der Darm hat seine normale Bewegungstätigkeit infolge jahrelanger Fehlernährung, eingestellt.

Schlacken, Inkrustierungen und verhärtete Substanzen in den Haustrien (Darmtaschen) verhindern eine normale Peristaltik (rhythmische, wurmförmige Bewegung des Darmes) und damit den Weitertransport des Darmesinhalts. Nur immer stärkere Abführmittel mit ihrer zerstörenden Wirkung auf die Darmschleimhaut verschaffen noch einigermaßen Abhilfe.

Ein gesunder Darm bildet die Grundlage für einen gesunden Körper. Eine Säuberung des Darmes durch die Colon-Hydro-Therapie und Hinführung zur Normalisierung (Heilung ist nur möglich, wenn vorher eine Säuberung erfolgte), wie z.B. Ernährungsumstellung und Arbeiten für die Gesundheit (z.B. in Form von Bewegung).

Die Colon-Hydro-Therapie erzeugt keine Schmerzen oder Krämpfe und wird von den Patienten als äußerst angenehm und wohltuend empfunden. Das geschlossene System verhindert, dass sowohl für den Patienten als auch für den Therapeuten unangenehme Erscheinungen, in Form von Gerüchen, etc., entstehen.

Die Indikationen für die Colon-Hydro-Therapie:

- Allergien, Obstipation, Diarrhöe, Dermatosen, Divertikulitis, Dysbakteriose, Morbus Crohn, Immunschwäche, Depressionen, Asthma bronchiale, Neurodermitis, Akne, Rheuma

Die Kontraindikationen für die Colon-Hydro-Therapie

- Schwangerschaft, akute Darmentzündungen, schwere Herzerkrankungen, Z. n. frischen Darmoperationen

A. I. Grigoriev
V. A. Orlov

“HEALTH NAVIGATOR” TECHNOLOGY FOR THE CONTROL AND DIRECTING OF HUMAN HEALTH

SSC RF IBMP RAS, Moscow, Russia

Department SSC RF IBMP RAS, Moscow, Russia

Today it is universally recognized that ecological environment and the person's way of life influence significantly the health forming. Hypokinesia, water and food quality, smoking, alcohol and drugs intake are accompanied by phenotypological adaptation and gene mutation in renewed generations of cells and tissues that leads to the rise of chronic somatic diseases of organs and systems. The latent period of such diseases can last during 10-20 years.

The criteria of somatic health are functional (adaptive) reserves of cardio-vascular, respiratory, neuromuscular, endocrine, immune and other systems that is guarantee of good health and comfortable well-being of a person.

In the basis of the scientific conception and technology “Health Navigator” developed in SSC RF IBMP RAS there is the idea that a modern man at different stages of his life to preserve good well-being, reliable protection from somatic diseases and traumas, to possess high work capability till the pensioner age should keep his organism in optimal physiological and morphological state.

“Health Navigator” technology consists of four structural-functional blocs: methodologies of complex non-invasive examination; age models of somatic health on the basis of 20 psychophysical characteristics and integral assessment at the stages from 6 to 60 years old; computer program “Passport of physical health” for the processing and handing over of the results to the patients, physicians, public health managers; standard models of sanitary-developing programs for the people of different age, sex, level of somatic health and reserves of functional systems of the organism.

Available to all “Health Navigator” technology is meant for the use in local polyclinics, medical cabinets of schools, universities, industrial enterprises for periodic control of somatic health, increase of medical-hygienic knowledge of the population and forming of high personal and public culture of health and healthy way of life. The technology can play a definite positive role in the sphere of sanatorium-and-spa making the population healthy.

During five years “Health Navigator” technology has been approved in Moscow, Saint-Petersburg and a series of other regions of the country receiving positive evaluation among specialists. In 2006 this technology was included in the National register and recommended for use in medical practice.

During the scale implementation of “health Navigator” technology public health managers will get at their disposal the unique data basis about the state of somatic health

konstitutionelle homöopathische Präparate, die jedem Patienten individuell ausgewählt worden waren. Nach der 21-Tagen-Pause (nach dem Abschluss der ersten Etappe) wurden die klassische Akupunktur, oberflächliche mehrnadelförmige Reflextherapie und Vakuum- Reflextherapie mit der Laserpunktur kombiniert. Die zweite Etappe hat 10-12 Prozeduren gedauert. Im Laufe der zweiten Behandlungsetappe setzten die Patienten fort, homöopathische Präparate einzunehmen. Falls notwendig wurde ein anderes homöopathisches Präparat gewählt. Die dritte Etappe der Behandlung fing nach der 30-Tagen-Pause an. Während der Pause haben die Patienten die Prozeduren der klassischen Massage (10 Prozeduren) bekommen. Die dritte Behandlungsetappe schloss die obengenannten Methoden der Reflextherapie und Homöosinistrie (das Präparat wurde nach dem klinischen Bild gewählt) und Laserpunktur ein. Nach dem Abschluss der dritten Etappe hat es eine Pause (60 bis 90 Tage) gegeben. Während aller Behandlungsetappen folgten die Patienten den Empfehlungen des Arztes zur Ausarbeitung der mimischen Gesichtsmuskulatur mit Hilfe von Heilübungen.

Die Effektivität der Behandlung. 66,6% der Patienten haben nach der 1. Etappe über die Abwesenheit der Schmerzerscheinungsformen und die Verbesserung der psychoemotionalen Kondition berichtet. Bei 33,3% der Patienten ist teilweise (80%) die Wiederherstellung der Funktionen zu bezeichnen. Nach der zweiten Etappe waren bei 83,3% der Patienten die klinischen Erscheinungsformen, einschließlich die kosmetischen Defekte, vollständig verschwunden. Nach dem Abschluss der dritten Etappe ist die klinische Genesung bei 100% der Patienten zu bezeichnen. Die vierte Etappe (mit dem Ziel der rückfallverhütenden Therapie) hat bei 58,3% der Patienten nach 60 Tagen begonnen, und bei den anderen Patienten (41,7%) – nach 90 Tagen eingeleitet. Die vierte Etappe wurde durch die provozierenden Faktoren (Erkältungen, Unterkühlung, das Vorhandensein von degenerativ-dystrophischen Veränderungen in der Halswirbelsäule) verursacht. Die Effektivität der Behandlung ist nicht nur durch das Verschwinden von klinischen Erscheinungsformen, sondern auch durch die Angaben der Laboruntersuchungen bestätigt worden. Nach dem Abschluss der vierten Behandlungsetappe waren die Patienten unter Betreuung eines Arztes und nahmen homöopathische Präparate noch im Laufe von 6 Monaten ein. Das Vorhandensein der stabilen Remission bei allen Patienten ist während der 1. Etappe festzustellen. Auf solche Weise, haben die optimal ausgewählten Schemen der Behandlung in der Kombination mit der adäquat gewählten Zeit der Interventionen eine wirksame ärztliche Betreuung und Behandlung der Patienten mit der posttraumatischen Neuropathie des Gesichtsnervs ermöglicht.

E.L. Macheret
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ALTERNATIVE THERAPIES IN PATIENTS WITH CEREBROVASCULAR DISORDERS

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Conventional methods of treatment and prevention of cerebral-vascular diseases are not quite effective, are associated with numerous side-effects, expensive and in need of reconsideration. Therefore as the most feasible approach in our opinion is considered a complex approach in prophylaxis of dysfunctions of brain blood circulation based on combining medicament and non-medicament therapies. An important part is given to the methods of reflexotherapy (RT) most of all laseropuncture and the methods of chinese phytotherapy.

Materials and research methods: 147 patients with cerebral-vascular pathology were observed, among them (95 - with chronic brain ischemia (CBI), 52 post-stroke patients (PS). 84 patients were administered the preparation of Bolus Huato (BH) (61 as a monotherapy, 23 - in a combination with RT) comparing 63 patients of the control group treated with the traditional medicament therapy.

The study comprised the following methods: clinical-neurological research, neuropsychological research (SAN scale, test „troika”, test „10 words”, Mini-Mental State Examination (MMSE)), research Rehabilitation Activities Profile (RAP), transcranial Doppler ultrasonography (TCD) («Sonomed - 300», Russia), Electroencephalogram (EEG) («Neuron - Spectrum», Russia)

The patients were treated with BC preparation within three months. (Patients with CBI -12 pills twice a day; post-stroke patients - 24 pills twice a day). CBI patients during this period were also treated with a course of RT methods.

Results and their discussion: as the result of the treatment all the patients reported positive dynamics concerning complaints and neurologic symptomatics, which was confirmed with the clinical-instrumental and neuropsychological data.

Thus neuropsychological test in CBI patients revealed an improvement of psychomotor and mnesic functions (test „troika”, „10 words”). Besides among the patients of both group significant improvement of spirit, lowering of anxiety, emotional lability in comparison with the control group was observed (test CAH).

The study of cognitive dysfunctions with the use MMSE in 21 post-stroke patients showed a positive dynamics (average value in this sub-group raised from 19,3±3,7 up to 22,9±2,1 ($p<0,05$)), reaching practically the norm.

At RAP test the maximal effect was achieved at the profiles “communication”, attitude to the environment, “self care”, on the contrary at the profiles “mobility” and “occupation” the effect was minimal.

After the treatment according to TCD data a growth in speed characteristics of blood flow along the arteries under investigation was found in both groups compared to the starting level. The growth of lineal speed of blood flow in post-stroke patients was somewhat lower as compared to CBI patients that were subject to combined treatment with RT methods.

The positive influence of the conducted therapy demonstrated a tendency to accumulation of summarized spectrum of alpha-activity as well as a reduction of summarized spectrum of tetra- and delta-activity according to EEG data.

Conclusions: Therefore, the trial demonstrated that administration of Bolus Huato favouring all the assessed clinical forms of cerebrovascular disorders proved to be effective as monotherapy and as combination with RT methods.

G.Z. Mangazbaeva

THE STATUS AND PERSPECTIVES FOR INTRODUCTION STUDIES OF MEDICINAL PLANTS FOR THE DEVELOPMENT OF NEW PHYTOPREPARATIONS

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Ever changing environmental status, uncontrolled collections of raw materials occurring in the nature, low concentration of active compounds and low quality of the raw material necessitate preservation, studying and cultivation of medicinal plants.

With this purpose, the Institute of Phytochemistry has compiled the collection accounting for over 80 species of medicinal plants including rare and endemic species for Kazakhstan, such as: *Hypericum perforatum*, *Lavatera thuringiaca*, *Dictamnus Angustifolius* G. Don., *Ajania fruticulosa* (Ledeb.) Poljak, *Ziziphora Bungeana* Zuz., *Salsola collina* *Helichrysum arenarium* L, *Lavandula angustifolia*, *Salvia officinalis* L., *Antennaria dioica*, etc. The collection of medicinal plants is constantly expanded by new species collected during expedition surveys and by the exchange with botanical gardens.

In the period from 1993 to 2005, the Institute has introduced and is currently cultivating commercial quantities of more than 20 species of medicinal plants.

For the past years, rich and diverse flora of Kazakhstan has been searched and studied for the plants that could be potential sources for new medical products derived from the domestic plant material.

Among new medicinal plants are the following: *Artemisia glaberrima* Kar. et Kir – an endemic plant, plant source for the medicine “Arglabin” possessing marked anticancer activity; *Salsola collina* Pall.– plant source for the liver protecting preparation “Salsocollin” which is very effective in the treatment of different hepatitis forms, chronic diffusive lesions of the liver; *Ajania fruticulosa* (Ledeb.) Poljak – medicinal plant whose essential oil

demonstrates high anti-tuberculosis effect.

Under the conditions of Central Kazakhstan, the species undergo all vegetation phases proving valuable yield of high quality plant material and seeds. Basic stages of cultivation technology have been developed. Irrigation and nutrition were observed to be the main restricting factors in the formation of the crops yield

S.I. Matajev
E.A. Lunka
Zh.V. Erygina
T.N. Vasilkova

OPPORTUNITIES OF LYMPHOTROPIC THERAPY AND ENDOECOLOGICAL REHABILITATION METHOD FOR TREATMENT OF MICROBIAL INFLAMMATORY DISEASES OF URINARY EXCRETION ORGANS

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Lymphatic system is one of the key links in the homeostasis and humoral transmission system. Lymphodrainage disturbance influences on the development and outcome of most diseases. Optimization of lymphatic system inadequate functions is the important principle of clinical lymphology and its methods are successfully used in modern medicine.

Aim: analysis of lymphotropic therapy and endoecological rehabilitation efficiency for the treatment of urinary excretion organs microbial inflammatory diseases of children.

Methods: 36 children with microbial inflammatory diseases of urinary excretion organs at the age from 3 to 9 years were under the observation, mean age $5,4 \pm 0,6$ years. By the results of ultrasonic examination of children abdominal cavity organs we can exclude urogenital system abnormalities. Bacteriological investigation of urine detected in diagnostic titers 75% cases of *Escherichia coli* and 25% cases – *Proteus spp.* During the laboratory examination moderate leukocytosis and increasing of ESR (erythrocyte sedimentation rate) were observed in 41,7% of the children, transitory proteinuria – in 25%, an increased content of leukocytes – 100%, increased content of erythrocytes – 16,7%. 1 group (9 people) was treated with a standard regimen (3 courses of antibacterial therapy inside or by parenteral dosing, spasmolytics, disaggregants, and antioxidants). With the purpose of restoration of disturbed tissues lymphodrainage, increasing of local immunity and sanitation of nidus of infection in the urinary excretion system in 2-nd group (27 people) for all patients were carried out two courses (10-14 days) of endoecological rehabilitation by Levin (ERL): Catreli in combination with systemic enzymotherapy (Wobenzymi), cholagogic, sorbent, polyvitaminic mineral complex. Selected by the sensitivity antibiotic was introduced once a day during 10 days by lymphotropic into inguinal paranodular region by the technique by L.M. Yurjin in the dose equal to half-single dose, because lymphotropic method of introduction enables to form high concentration of antibiotic in the pathologic center during the day. Electrophoresis with Terrilytini was

carried out by general and regional technique. A course of Polyoxidonii injections was conducted for the children of both groups after completion of the antibiotic therapy.

Results: in all children groups urine sanitation (general microbe number $GMN < 10^3$ KOE/ml) was attained. In the group, which received a lymphotropic therapy, normalization of bulk urine test was observed on average 3-4 days earlier, there were no recurrences of microbial inflammatory diseases of urinary excretion organs. None of children had some complications or side effects.

Conclusion: opportunity of successful application of lymphotropic therapy and endoecological rehabilitation for the treatment of urinary excretion organs microbial inflammatory diseases of children was shown. Lymphotropic method of antibiotic introduction in contrast to traditional method doesn't bring to forming of regional lymph nodes sclerosis and to dropping of resistance of urogenital tract mucous tunic, and prevent from develop of recurrences. Thus, lymphotropic method of antibiotic introduction in combination with endoecological rehabilitation can be used as effective, alternative for the conventional method of treatment of microbial inflammatory diseases of urinary excretion organs in children.

A.A. Michaylova
O.V. Chripunova
A.A. Pospelova

CORRECTION OF SIDE-EFFECTS OF ANTIDEPRESSANTS AND TRANQUILLIZERS BY ACUPUNCTURE AND HOMEOPATHY IN NEUROTIC DEPRESSIVE DISORDERS

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The unfavorable social, economic and ecological situation, which has been reported in Russia during the last 10-15 years, has led to the significant increasing of emotional, informational and ecological pressing, which causes a very harmful effect on a human's psychic condition and his somatic functions.

This makes the different level's psychic and "limital" disorders to increase. These are neurotic, somatoform and posttraumatological stress disorders. Also there is a tendency of a specific gravity of the patients with neurotic depressive disorders to increase. In spite of the different psychotherapeutical, acupunctural, homeopathic and other methods of curing such category of patients were offered, antidepressants and tranquillizers take the central place in such patients' therapy. We know well the side-effects, which appear after using high doses of a psychopharmacotherapy (PPT). This are the psychological and physical dependence, the myorelaxation, the daily sleep, the disturbance of a movements' coordination, the body mass enlargement, the diplopia, the cardiotoxic effect and the others. That's why it is actual the problem of treating of a complex schemes of curing of the depressive neural disorders with reduction of the antidepressants' and the tranquillizers' (Phenazepamum, Amitriptyline, Xanax, Ludiomil) doses by using the differentiated

courses of the acupuncture (Auricular points: 55, 34, 130, 51, 82, 100; corporal points: Gi4, Gi11, E36, E40, MC6, TR5, TR8, VB34, VB39, F2, F3, F4, F5, RP6, RP9, T12, T14, T20, T24) and the antihomotoxic therapy (Cerebrum compositum, Traumeel S, Echinacea compositum).

Material and Methods: 63 patients with neurotic disorders were treated, in whom psychical status the asthenodepressive symptoms were dominated (aged $37,4 \pm 0,7$ years, the disease continuance is $4,3 \pm 1,2$ years). Were investigated the biochemical and immunological indexes, the electrocardiograms, the reoencephalograms, the Burdon's test results, the MMPI test results, the unify system of a mental state assessment's results, the multilevel registration's of a functional organism state with using the auricular points results, the testing by the method of Voll results. This was done to objective the patients' state under the complex therapy.

There were a positive dynamic of clinical-psychological, vegetal and immune indexes under the complex therapy. But the psychopharmacotherapy provides not only a good sedative and antidepressive effect, but in the same time it produces a negative effect through multiple side-effects.

The complex therapy including the psychopharmacotherapy, acupuncture, homeopathy, produced a sedative, vegetostabilising, immunomodulising effect, a detoxic action, a strong drainage and vegetotropical action. The myorelaxation, the daily sleep, the pains in Zacharian-Ged's zones, the somatotropical and neurotropical effects of the psychopharmacotherapy were decreased.

So, the complex using of the PPT, the acupuncture and the homeopathy have led to the decreasing of PPT's doses and helped to increase the adaptive reaction's level, potentiated it's psychotropic effect.

Resume. The treatment of neurosis disorders by psychopharmacotherapy needs a correction of elicited side-effects in the psychic, somatic and vegetal areas. The antihomotoxic therapy with the use of acupuncture points is an effective method; it has the vegetostabilizational, detoxical, desensibilitical and immunomodulising action.

S.V. Notova
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**MODERN CONDITIONS AND WAYS OF CORRECTING
THE NUTRITIONAL STATUS IN VARIOUS AGE AND
INDUSTRIAL GROUPS IN THE POPULATION OF ORENBURG
REGION**

.....
: *Orenburg State University , Orenburg, Russia*

In modern conditions the nutritional status of various groups of the population of Russia is characterized by insufficient consumption of some irreplaceable food substances that can cause food-dependent non-infectious diseases. The priority role in prevention

of development of such diseases plays an adequate, balanced feed. In this connection, the employees of the Departments of Nutritiology and Bioelementology and Preventive Medicine at the University's Institute for Bioelementology, conducted a complex assessment of the nutritional status in children from 4 to 14 years living in a countryside, the University students at the age of 19-23 years and workers of the industrial enterprises from 15 till 60 years. Frequency of deficiencies or surpluses of receipt of some nutrients in comparison with the norm (MP 2.3.1.1915-04) was established. To examine the factual daily diet of the population (MP C1-19/14-17, 1996) a questionnaire was used with the subsequent data recording and processing by the specialized ASPON computer program (prof. I.M.Vorontsov, BIMK-D, 1996).

The examination of daily diets of the surveyed groups has shown significant imbalances in consumption of some essential macro- and micronutrients. Thus, averagely in the diet of the children an excess of 1,5 times (in comparison with physiological norms) in consumption of macronutrients was established, which resulted in increased energy supply by 32%. Nevertheless 86 students reported a decrease in energy consume by 12,3%, basically, due to reduction of required amount of carbohydrates. In about 40% also deficiency of energy was observed. The estimation of macro-and microelement structure of daily average food rations in the studied groups revealed a deficiency in Ca, I, Se and relatively moderated – in Zn. Consequently, the diet of the children contains 60% less Ca as recommended; in 97% students - almost 56%, in 90% workers - twice below the norm. Insufficient receipt of Zn, in average among 60-85% of the surveyed groups was established. Deficiency of I in the children came to 53%; in 95% of the students it was 2,2 times lower; in the workers - in 2,6 times. The inadequate receipt of Se by the children (14% below the norm), by the students (decrease of 1,5 times in 100 % of those surveyed) and in a significant number of the workers is one of the preconditions for accumulation of toxic metals to the organisms of the population (especially in the children and the workers of harmful productions). However, deficiency of essential microcells, first of all, I and Se during childhood and adolescence, may cause serious dysfunction of thyroid gland, complicated by deterioration in physical development, memory, school progress and also lead to lower body resistance and enhancing of the negative influence of the environment and a nervous-emotional strain and stress.

Therefore, deficiency in the consumption of Ca, I, Se, Zn is characteristic for the inhabitants of Orenburg Region, irrespective of age and industrial features. This fact calls upon a necessity of introducing measured on correction of the population diet regarding a group of the essential elements. As one of such measures a daily supplement of specialized functional drinks "University", and "Aqua-iodine" is suggested.

TRADITIONAL CHINESE MEDICINE FOR HEALTH INVIGORATION

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The traditional Chinese medicine shares on nine specialized areas: therapy, external medicine, gynecology, pediatrics, ophthalmology, laryngology, orthopedy, massage and acupuncture. In the West it is known as insertion of the needles, cauterization and acupuncture.

- Alongside with assignment of special medicines and acupuncture the Traditional Chinese Medicine uses the following methods: gluing of medical products on the skin; cuts of a skin; medical gymnastics; massage; imposing of bandages with beer wax; pinching therapy of a backbone; peloidotherapy; jars; scraper massage; usage of medicinal pairs and smokes; the Chinese respiratory therapy; hydrotherapy; introduction of medicines in a skin by ironing.

- «The Doctrine of a balance between yin and yang» - narrates about two polar forces expressing universal energy of the universe. The doctrine includes four separate interrelations: Presence of contrasts between yin and yang. Presence of interrelation between yin and yang. Mutual addition and restriction yin and yang. Mutual transformation yin and yang.

- «The Theory of five elements». The given concept recognizes that a tree, fire, metal, the ground and water are the basic components of world around which are necessary for the person for daily existence, are connected to the appropriate bodies and are among themselves in dynamic balance and interrelation. We have some kinds of connection: creating, supervising, increased control and the return control.

- «The Doctrine about solid and hollow organs ». Explains physiological functions and pathological changes of internal organs, and also interaction of them among themselves. Five solid organs: heart, easy, a spleen, a liver and kidneys. Six hollow organs: a bilious gall, a stomach, a thin and thick intestines, a bladder and three heaters.

- «The Doctrine about chi, blood and secretions of a body ». The concept “chi” is more than “function” and includes some more concepts: - functional activity of body or an organism; character of the phenomenon; the substances necessary for normal ability to live; and six pathogenic chi (a wind, a cold, heat, dampness, dryness and fire). Concept “blood”, - one of the basic components which support functions and life of an organism. «secretions of a body » enter into concept all normal liquids of a body and bodies (sweats, tear, gastrin, liquor etc.).

- «The Doctrine about meridians and collateral vessels». Meridians - Manual: easy; a thin gut; hearts; three heaters; a pericardium; a thick gut. Foot: spleens; a bladder; kidneys; a bilious gall; a liver; a stomach. 8 Wonderful meridians. Vessels - 15 vessels Be - Lo departing from meridians; small branches of vessels Put - lo; and taking place on a surface

on a skin vessels Fu - Io.

- «The Doctrine about the cause of diseases and their displays». The main causes of diseases: six “misfortunes”, rendering external influence: a wind, a cold, summer heat, humidity, dryness and fire. Seven deviations of mental character, provoking internal damages: pleasure; fury; cares, or melancholy; to mountain, or burdensome meditation; grief; fear and fear, or horror. External damages, infringement of a nutrition, an excessive physical exhaustion etc.

- «The Doctrine about mechanisms of development of illness ». Development of illness is connected with: infringement of a parity between yin and yang; between qi and blood; between qi and liquids of a body; between secrets of a body and blood; with occurrence in an organism of a cold, dampness, dryness or fire; with infringement of movement qi on meridians; with an unbalance of feelings and with the unhealthy changes occur inside bodies and systems.

- The essence of the Chinese medicine consists of three basic and fundamental principles: harmony between the person and the nature. Consideration of the person as an organic single whole. Diagnostics and treatment depending on syndromes.

- Occurrence and development of illness are considered by the Chinese medicine as result of struggle between protective forces of an organism and infringement causing illness, as display of an imbalance between yin and yang or as a result of the internal reasons existing inside the human body

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BIOLOGICALLY ACTIVE SUPPLEMENTS TO FOOD FROM HYDROBIONTES: TECHNOLOGIES, PROPERTIES AND PRACTICAL APPLICATIONS APPROACHES

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Objects of fishing and products of their processing represent huge raw potential for obtaining of biologically active substances - BAS and natural concentrates on their basis - biologically active supplements to food - BASF. Advantages of use of fishing objects are: use of accessible sea raw material, ecological safety, a wide spectrum of treatment-and-prophylactic action.

In TINRO-Centre researches on a line of classes BAS - proteins, enzymes, peptides, nucleic acids, fish fats, carbohydrates are carried out. High pharmacological value hydrobiontes BAS, profitability and ecological cleanliness of manufacture of end-products has raised interest in Russian and foreign manufacturers and various medical institutions. For manufacture of BASF effective physical and chemical methods of allocation and

clearing (step separation, specific extraction, enzymes hydrolysis, ultrafiltration) put in the basis of industrial technologies are developed. Priority development of the structure and applications of BASF for prevention and corrections of diseases of various etiologies proves to be true with the patents protecting ways of reception.

Now there were produced more than 15 nominations of BASF related to the category nutraceutics and parapharmaceutics. From squids optical ganglia it is received BASF «Tinrostim» into which structure enter low-molecular peptides and free amino acids. As a result of preclinical tests it has been established, that it renders dose depend effects on reaction humoral and cellular immunity in vitro and in vivo. «Tinrostim» modulates functional activity of polymorphonuclear leukocytes, macrophages. From salmons milts low-molecular DNA is proceeded, recommended to application in the regenerative period after the transferred diseases accompanying with deterioration of functional parameters of intellectual and physical health. There are preparations of a series «Molluskam» produced from two-folding mollusks, enriched by free amino acids, including taurine, that stimulate cardiovascular system, functions of sight; series «Nucleatin» developed from gonad hydrobionts, containing free amino acids and oligonucleotides, strengthening physical and intellectual abilities; series «Artrotin» based on hydrobiont cartilage tissues, containing aminosugars and the soluble collagen, stimulating metabolism of the connecting tissue. Sources for BASF of a lipid nature - «Omega-3 euconat», «Krusmarine», «Eucolan» - are fats of fishes, crabs and squids. Except for polynonsaturated fat acids they contain significant amounts phospholipids, b-carotin and also alkyl-gliceril ethers. They essentially raise the immune status of an organism and can be applied at allergic diseases and asthma.

Specified BASF are recommended to use for prevention and correction in various fields of medicine: internal medicine, hematology, oncology, gynecology, pulmonology, neurology.

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**STUDY OF ANTIOXIDANT ACTIVITY OF THE PHYTOREMEDY
«TIGROVIY GLAZ – ORTHO»**

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Reactive oxygen species (ROS) in high concentrations can damage or kill cells and tissues. Their action is at the bottom of great number of diseases (e.g., tumor and cancer, chronic inflammations) and lead to complications in pathology (e.g., diabetes mellitus). Opposite, ROS in low doses can regulate intracellular reactions and promote cell survival. Nature compounds and their compositions are potential exogenic scavengers of ROS and other free radicals. To consider it necessary deep scientific analysis to use the phyto remedies in practical apply to improve health. Phyto remedy "Tigroviy glaz – ortho"

was designed at the Scientific Production Association “MEDICOMED” (Moscow, Russia) as panto-restorative, adaptogenic and antioxidant complex. Compounding of bioactive additions “Tigroviy glaz” was taken into account of biological activity of standardized dry plant extracts from *Bergenia crassifolia*, *Arctium Lappa*, *Betula verrucosa*, bark of *Salix alba* and complex of amino acids (collagen hydrolysate). Task of the work was to study antioxidant activity of phytotherapy “Tigroviy glaz – ortho”. The preparation properties was estimated on the in vitro experimental models by chemiluminescence analysis using a chemiluminometer “CHEMILUM-12” designed at the ICB RAS (Russia). The phytotherapy “Tigroviy glaz – ortho” was examined unfractionated human blood of health donor-volunteers, isolated granulocytes and cell-free enzyme reaction. The preparation decreased level of the activated ROS production in the whole human blood in dose-dependent manner. Since the neutrophils are the most active to produce ROS in the whole blood, the remedy in different dilutions (from 103 to 106 times) was tested on the isolated cells. Pretreatment of the cells with the “Tigroviy glaz – ortho” significantly decreased spontaneous level of ROS production and depressed intensity of the respiratory burst induced by chemotactic peptide N-formyl-Met-Leu-Phe (fMLF) – product of the bacteria degradation. Effect of the preparation depends on the dose. The effect of the specimen on the NADPH oxidase activity of the cells ranged from low decrease (dilution 106) to complete depression (high concentration, dilution 103). Then the plant preparation was tested on cell-free enzyme reaction “xanthine – xanthine oxidase”. Superoxide-anion radical is product of this reaction. Its dismutation gives rise to other oxygen intermediates such as hydrogen peroxide, singlet oxygen, and hydroxyl radical etc. The plant preparation inhibited the reaction in dose-dependent manner similar to superoxide dismutase. Thus, the phytotherapy “Tigroviy glaz – ortho” demonstrates antioxidant activity in the whole blood, on isolated cells and in the enzyme reaction. We conclude that the product “Tigroviy glaz – ortho” possesses a very high antioxidant activity in the doses reached in dilution more than 100000 times. Antioxidant action of the preparation directs to superoxide-anion radical being initial form for other reactive oxygen intermediates. We suggest that the application of the phytotherapy “Tigroviy glaz – ortho” could be efficient in diseases complicated by phagocyte dysfunction and abundant unregulated ROS production.

V.I. Popov

CORDYCEPS SINENSIS – A UNIQUE PREPARATION OF TRADITIONAL CHINESE MEDICINE

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Cordyceps sinensis - a rare raw material, which is a surprising natural combination of representatives of flora (hypha and mycelia of mushroom) and faunae (larva of a moth

on which this mushroom parasitizes), that has no analogues among other forms and properties in a nature.

For last fifty years scientists allocated from cordyceps such components as: adenosine, polyosa of cordyceps, peptides, irreplaceable amino acids (which the human body can not develop), vitamins and microelements. It is proved, that it can reduce concentration of lipids in blood that prevents occurrence of an atherosclerosis, stimulate production of blood, adjust immunity, slow down growth of malignant tumours, restore after fatigue, prevent ageing fabrics of a human body; has strong antioxidant activity.

Cordyceps stimulates activity and distribution of T-lymphocytes, natural killers (NK-cells) and cells of mononuclear macrophages, and also stimulates secretion of a lymph, thus activity and action of NK-cells is increased in 1,5 times; phagocytary function of mononuclear macrophags increases by 73%; phagocytary index is increased by 130 %; activity sour phosphotase raises by 78%. Cordyceps has optimum action for increase of quantity of leukocytes, stimulates proliferation of megacariocytes in the spleen, activates the function of hypothalamus and a hypophysis, raises allocation of hormones and adjusts biochemical processes in an organism.

Cordyceps also has an obvious total influence on hematois stimulating formation of stem blood cells, granulosa-mononucleous tissue cells and fibroblast, proliferation of megacaryocytes of the spleen. It activated the work of the hypothalamus, the hypophysis and raises allocation of hormones.

Cordyceps adjusts imbalance of the immune system (at such illnesses as cold, allergies, hepatitis), and also other illnesses caused by stress (for example, strong forms of fatigue, a neurasthenia, sleep disorders, anorexia etc.), prevents growth of malignant tumors and has remarkable results during chemotherapy in a combination to traditional course of treatment, in particular at a cancer of nasal cavity, laryngeal, cancer of lung, stomach, liver, lymph, blood.

Liquid forms of Cordyceps - effective preparations, which contain everything in a natural form to restore normal functioning of all body systems. They have 100 % natural structure and are produced on the basis of myceliums of three supreme mushrooms: Cordyceps, Reishi Mushroom (*Ganoderma lucidum*) and Black mushroom (*Shiitake*, *Lentinula edodes*) with addition of high-mountainous honey as a natural preservative. It contains: beta-carotene, vitamins D, E, C; amino acids, the fibers, non-saturated fat acids, immunomodulating polysaccharides; mineral substances: potassium, phosphorus, iron, calcium, magnesium, zinc, manganese, a pine forest, cobalt, selenium etc; and also more than 80 types of enzymes, which participate in all processes of splitting of food and construction of a cell and Q10 as a link in a chain of the enzymes, linking them and giving to them energy. Cordyceps in liquid form is 100 % assimilated without formation of slags.

It is a fine soft clearing product without contra-indications enabling to remove toxic substances from the organism and it renders bacteriostatic influence against several dozens of pathogenic bacteria, including such as pneumococcus, a streptococcus, golden

staphylococcus, the virus of herpes, removes spasms, splits tumours.

Cordyceps considerably improves blood supply of the heart muscle and other organs that prevents thrombosis and the liver cirrhosis, illnesses of the urinogenital system combined with complaints of back pain, frequent urination, bad urine analysis etc.; produces positive effect in prevention and treatment of such serious illnesses as myocardial infarction, ischemic heart disease, ischaemic stroke, a stenocardia, kidneys disorders: glomerulonephritis, a pyelonephritis, cystitis; raises a power exchange in tissues: heart, liver, kidneys, produces an antitoxic effect – removing all toxic substances from the body, including intestinal poisons, waste materials of medical products, radionucleids, salts of heavy metals etc are actively deduced.

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CONTROL OVER THE HEART ACTIVITY BY THE TIME PERCEPTION OF THE VISUAL ANALYZER

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The significance of the functional condition (FC) and the properties of the central nervous system (CNS) for organization of any form of activity is empirically known long ago. Basing on the CNS role the researches (Maslov N.B. and coauthors, 2003) presume that for practical assessment of FC a priority attention should be paid to the CNS. To estimate the FC of the CNS psychophysical methods are widely used (J.Chasset, 1981) enabling to study relationship between the man's activity and his FC.

Efficiency of the function of the visual analyzer (VA) depends on a number of factors including also the function level of cortical section. Therefore as the criteria characterizing FC CNS there is the FC of VA (Zagryadsky V.P. and V.P. and coauthors 1976). Thus, according to the data (Efremov V.S., 1988) VA is less dependable on deviations in the parameters connected with the emotional strain, so the methods of estimation of the functional condition of the visual analyzers are used for the analysis of FC of CNS at different kinds of activities.

One of the VA temporal parameters is the time of perception (TP) - that is, the time between the moment of the impact on the retina and the moment of the occurrence of the corresponding visual perception. To estimate TP of the VA is possible with the method of paired pulse measuring the threshold duration of the pulse separation, which is responsible for the perception of merging two impulses into one (Patent 2231293 RF).

Dynamics of TP of VA determining a change of speed of nervous processes during the individual study in the man's adaptation to physical strain enables to evaluate the condition of CNS. In the veloergometry study of the strain, equal to 75% of the proper oxygen consumption participated the students of pedagogical university that do not go in

for physical training. At certain training stage TP sharply decreases, which signalizes the state of strain in CNS and the necessity to stop testing though the dynamics of frequency of heart contractions (FHC) account for continuing the test.

A detailed medical examination showed that these respondents have some disorders in the function of the heart. They were treated according to an individual 4-month plan of physical training (one regular semester). After each month of the training a control examination was carried on. By the end of the second month some improvement was stated, by the end of the semester the condition approached the norm.

The experimental studies enable to recommend the method of estimating the TP VA to reveal a concealed heart defect and to monitor the efficiency of rehabilitation measures

V. Petrova

**THE CONFIRMATION OF EFFICIENCY OF COMPLEX THERAPY
AT USING METABOLIC MEDICINES OF "PLANETA-M"
ASSOCIATION, DIETARY THERAPY AND SPORT ACTIONS
ANALYSED WITH COMPLEX OF FUNCTIONAL DIAGNOSTICS
"MEDISCRIN"**

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Purpose. The purpose is to look for positive changes of systems, of protective forces of an organism, of level of a metabolism, of psycho-emotional condition of patients, at using metabolic medicines of association "Planeta-M", dietary therapy and sport actions for regenerative treatment.

Methods. Since October 2005 till April 2006 are analysed 180 people with complex of functional diagnostics "Mediscrin", from which 32 (18%) was analysed twice and more. Primary analyses was before treatment, repeated analyses – on a background of treatment. Individual schemes of regenerative therapy have been ordered to all patients at using metabolic medicines of "Planeta-M" association, dietary therapy and sport actions, in view of the anamnesis, the objective analyses and subjective opinions of the patient.

Results. A positive dynamics was got in cases: improvement of protective forces of an organism in 75% (24), of metabolism in 28%(9), of psycho-emotional condition of patients 58%(18), of muscular-bone system 56%(18), of respiratory system 47%(15), of immune system 50%(16), of urinogenital system 56%(18), of cardiovascular system 60%(19), of thin and thick intestines 66%(21), of liver 66%(21), of stomach 50%(16), of bilious bubble 50%(16).

Conclusions. Since October 2005 till April 2006 was treated 32 patients with

complex therapy at using metabolic medicines of “Planeta-M” association, dietary therapy and sport actions at individual purposes, in view of the anamnesis, the objective analyses and subjective opinions of the patient. The high efficiency of complex therapy was confirmed at using complex of functional diagnostics “Mediscrin”.

V.M. Plotnikov
V.A. Rotov

ASCORBATES OF BIOMETALS AND LITHIUM: WAYS OF REDUCING TOXICITY OF PSYCHOPHARMACEUTICALS

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Development of new psychotherapeutical medications of high bioactivity and low toxicity is one of the primary issues for the modern psychopharmacology. The medications based on the salts of lithium widely used in the practice are known to produce substantial side effects. Thus, there is the necessity to develop new forms of lithium preparations.

The objective of the present work is to investigate the properties of a new lithium complex containing the ascorbic acid as a bioactive ligand, comparing to ascorbates of calcium and cobalt.

The study of the acute toxicity of the ascorbates of cobalt, calcium and lithium was carried out in comparison with a popular clinical medication – lithium carbonates in BALB/C mice by intraperitoneal introduction of drug the water solutions of the above mentioned preparations with the method of probit analysis.

The study of immunomodulating effect of the preparations was carried out in the model of incomplete phagocytosis of neutrophilic leukocytes of the peripheral blood in healthy donors and in the reaction of blast transformation of the lymphocytes.

The comparable toxicity analysis of lithium ascorbate enabled to state that it is 2-3 times less toxic for the experimental animals as the pharmaceutical preparation of lithium carbonate as well as ascorbates of other metals. The results of estimation of the impact of the above mentioned preparations on incomplete phagocytosis of the leucocytes showed that after the effect of the ascorbates neutrophilic activity has increased by 50-100% alongside with the absorbing ability of leucocytes in comparison to the lithium carbonate.

Therefore, new properties of lithium ascorbate are established attributing it as a biologically active substance with a low toxic effect. Hence its further preclinical trial is recommended

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S.V. Dobrovolsky
E.L. Krylova

**HEALTH-IMPROVING AND PREVENTIVE TEAS ELABORATED
IN ACCORDANCE WITH A. POTOPALSKY'S FORMULA
WITH CELANDINE – POWERFUL PREPARATION FOR
TUMOR PREVENTION**

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Charitable fund of A.Potopalsky "Healer given by heaven" Kyiv,
Closed Joint-Stock Company "Medherbs", Zhitomir, Ukraine
Bismarck Apothecca, Düsseldorf, Germany*

Celandine, as an independent substance, especially in efficiently composed complexes with other healing plants, is widely used for treatment and rehabilitation of different by birth and features clinical courses. Due to contain of numerous alkaloids, organic acids, flavonoids, ethereal oils, ferments and mineral substances, celandine facilitates the organism's recovery and has a healing effect on the immune system, gastrointestinal tract, liver, pancreas, prostate, the urogenital system, skin, musculoskeletal locomotor and cardiovascular systems. Celandine has special significance in prevention and treatment of benign and malignant growth and also such systemic diseases as polyarthritis, tuberculous lupus, multiple sclerosis and HIV-infection. In case of malignant tumors, combination of all phyto-teas in one complex facilitates their health-improving and preventive effect to the maximum.

Closed joint-stock company "Medherbs" produces phyto-teas (Zhitomir city). The expert researches concerning phyto-teas effectiveness and safety were conducted by the Folk and Alternative Medicine Committee of Ministry of Health of Ukraine and sanitary-epidemiological expertise of Ministry of Health of Ukraine (Conclusion No.05.03.02-06/42959 from 27.10.2004). Here is enumeration of Closed Joint-Stock Company "Medherbs" phyto-teas elaborated in accordance with A. Potopalsky's formula. Phyto-tea can be purchased in Ukrainian drugstores and also can be ordered abroad:

- Artrourosan (to prevent urolithiasis, gout and to prevent neoplasm);
- Urosan (to prevent genitourinary system disease, especially urolithiasis, gout and to prevent neoplasm);
- Enterosan (to regulate gastrointestinal tract functions, especially if one has high gastric juice acidity and to prevent neoplasm);
- Imunosan (to normalize immune system, especially if one has allergies and immune aggressive disease, in particular, psoriasis, eczema, polyarthritis and to prevent neoplasm);
- Ghastrosan (to prevent gastritis, ulcer and to prevent neoplasm);
- Dermosan (to prevent purulent skin disease and mucosa complications, hair prolapse and to prevent neoplasm);
- Pneumosan (to prevent respiratory organs disease, especially bronchial asthma

complications, pneumonia, bronchial ecstasic disease and to prevent neoplasm);

- Angiotumoran (to prevent hypertension and brain circulation disturbances, and to prevent neoplasm);

- Kholeurosan (to regulate gastrointestinal tract function, especially if one has cholelithiasis and skin disease, and to prevent neoplasm);

- Tumoran (to prevent gastrointestinal and cardiovascular diseases, and to prevent neoplasm).

I.M. Prokopova

APPLICATION OF ESSENTIAL OILS FOR CORRECTION OF THE HOMEOSTASIS

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- The modern ecological situation promotes increase of morbidity of the population.

Allopathic drugs are, fundamentally, palliative. Moreover, their long term use is often associated with the risk of side-effects. Thus in relieving a diseased condition, other abnormal physiological and pathological conditions may develop. In other words a drug-induced disease is produced.

- Quite actual is an application of harmless natural remedies and techniques of treatment of the person, one of such remedies are essential oils (in our case - Elixan GmbH, Switzerland).

- Used techniques: TOTAL - baths, massages, internal application, inhalations. LOCAL - trays, compresses, applications, drops, syringing.

Clinical and laboratory researches were carried out on 147 patients.

- 39 patients with hypertonic illness;

- 25 patients with neurocirculatory distonia;

- 27 patients with nephrolithiasis and dismetabolic nephropathia;

- 33 patients with sinusitis, from them - 29 - antritis;

- 4 patients with fibromyoma uteri - the small sizes (up to 8 weeks);

- 11 patients with endocervicitis, resistant to traditional treatment;

- 7 patients with herpetic an infection and surrounding it is deprived;

- 6 patients with lambliosis;

- 5 patients with purulent wounds.

47,32 % of these patients had infringements of biochemical structure of blood (parameters of cholesterol > 5,2mmol/l are increased; in low density; at 20,7% - infringements of rheological properties of blood).

For treatment of these patients we used such essential oils, as: Citrus Limon, Citrus sinesis Osbeck, Eukalyptus citriodora, Tea Tree - Melaleuca alternitolia, Thymus

zygis, Lavandula officinalis Chaix, Ocimum basilicum, Foeniculum vulgare, Juniperus communis, Pelargonium graveolens.

- Besides of the basic disease or a syndrome, which we wanted to affect, improvement of the general condition was marked, passed treatment of accompanying pathology with which we did not allocate in separate group.

- Full recovery has come in 73 cases;
- Obvious clinical improvement has taken place in 44 cases;
- Small positive changes were observed in 27 cases;
- 6 patients were resistant to aromatherapy courses.

Thus, the aromatherapy method has the right to existence in the official medical world as its medical effect in correction of the homeostasis is proved.

A.V. Rotov
V.A. Rotov

**KEY POSTULATES OF THE MODERN HIGH-EFFICIENT
METHOD OF PSYCHO-PHYSIOLOGICAL CORRECTION
OF OVERWEIGHT**

OOO «Biointermed», Moscow, Russia

The world statistics shows that for two last decades the weight of the human population has increased by 16 kg! Nowadays constitution-exogenous (alimentary) obesity is one of the most common diseases among the population causing numerous illnesses that shorten man's life. This is also facilitated by a severe food imbalance, low physical activity combining with accelerating psychological stress. This problem is becoming even more actual due to low efficiency of existing and actively promoted methods of obesity treatment.

Besides, in obesity patients there is a strong emotional strain, high level of anxiety and stress, auto- and hetero- aggression, isolation, mistrust, susceptibility to frustration combined with setting high goals. This induces psychological problems in the person resorting to hyperalimentation and hypodynamia, which lead to obesity as a compensatory and socially approved source of positive emotions.

The system of goals and tasks of the psychological correction in obesity patients depends on age-related, personal, social-psychological and motivation factors and is based on detecting and correcting those personal characteristics, which are favorable for hyperalimentation and hypodynamia as the forms of pathological reaction to psychotrauma. It is aimed at revealing the role of psycho-social factors on development of obesity, forming adequate mechanisms of psychological adaptation, adapting the patients to more constructive behavior. Its key point is motivation of the personality so that it accepts the low-calorie diet not as a burden but as an only possible natural way of nutrition.

Our method of psychological correction of overweight and obesity (Patent RF Nr 2218944), reviewed in the present article, enjoys a high scientifically justified efficiency

(about 90%). It was developed and approved by the firm «Biointermed» in 1990 and for almost 17 years have been practiced in Russia.

It is a group method comprising three daily and four night sessions (total 24 hours of psychotherapy) includes rational, trance, transpersonal psychotherapy and elements of self-coding, programming and psychoanalysis aimed at decreasing appetite and stomach volume, accelerating of metabolism. As the result of the complex approach one gets a smaller stomach, an improved metabolism, decreased appetite – so a steady dominant for losing weight is introduced, psychological ground for overweight is determined and an individual strategy of weight loss is developed. In other words new stable attitude to one's body and health is adopted.

The patients should clearly understand that acquiring a beautiful body is a time-consuming process requiring adherence to certain rules, here are some of them:

1. You should carry on the motivation of losing weight, the aim of being thinner.
2. You cannot lose weight without changing yourself. Achieving one goal keep on setting the new one. But weight loss should not be the main and primary goal.
3. Do not pick up a diet that you cannot keep all life long. You can eat everything but with an individually limited calorie value and at the same time enjoying and getting full with the food.
4. Never fight against your body type and genetics you inherited from your parents.

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J. Dorosh

DIETARY ALTERNATIVES IN THE COMPLEX THERAPY OF METABOLIC SYNDROME

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Background: Abdominal-visceral fat mass decrease ranks high in the complex therapy of metabolic syndrome (MS). A loss of 10-15% of total body mass leads to a decrease in the fat tissue visceral component, sensitivity to insulin improves and hyperinsulinemia decreases. The study was undertaken to examine the impact of diets containing different ratios of carbohydrates and fats on body weight loss and changes in life quality in patients.

Methods: Diet therapy was prescribed to 87 male subjects with abdominal fatty tissue distribution and dyslipidemia aged from 39 to 46 years old through the Department of Family Medicine multi-profile clinic. Subjects were not previously diagnosed with ischemic heart disease or diabetes mellitus type 2 and didn't take any hypolipidemic therapy, beta-blockers or diuretics. Mild arterial hypertension was observed in 49.4% of cases. The diet was chosen by taking into account the taste and dietary habits of patient.

Results: The results of diet therapy were assessed following four months. Weight decrease dynamics and life quality changes were compared across 3 dietary courses: 1. low-carbohydrates diet (fats - 100 g, carbohydrates - 40 g), N=37; 2. low-fat (fats - 60 g, carbohydrates - 160 g), N=23; and diet with limited fat quantity (fats - 80 g, carbohydrates

- 130 g), N=27. The effective reduction in body-mass index (BMI) was achieved by using all the diets in question. Keeping to a low-carbohydrate diet caused the greatest BMI decrease (more than 22%) in the presence of good tolerability. The patients keeping to a low-fat diet had the decrease of BMI also near 22% with reported that they had limitations in choosing and cooking dishes and constantly felt hungry, which affected their subjective assessment of their tolerability. A balanced diet is well tolerated by patients but BMI loss being less effective (less than 20%).

Conclusions: Our results showed equal weight decrease in all groups, however life quality improvement and greater adherence were noticed after low-carbohydrates diet.

M. Rusetskaya
G. Chirkina

**STIMULATION OF VISUAL PERCEPTION AS AN APPROACH
TO PREVENTION OF WRITING AND READING DISORDERS**

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Empirical research has shown that in Russia, over 30% of primary school students with writing and reading disorders have difficulties perceiving visual information. Visual representation plays an important role in learning and everyday behavior of a person.

We have developed a technique named Visual Trainer, which helps improve visual perception in children four to six years of age. The technique facilitates gradual acquisition by the child of a number of sensory standards and a set of perceptive activities, which apply these standards to recognize objects.

Several structural components of the technique can be isolated:

- Identification, correlation, and modeling of visual objects
- Systematic scanning of the visual field
- Visuospatial orientation
- Hand/eye coordination

A distinguishing feature of this technique is the fact that it involves exercises that facilitate recoding (verbalization) of the visual information and solving mnemonic, mental, and motion-related tasks. The method includes:

- A program for targeted stimulation of visual perception
- A set of visual stimuli of gradually increasing complexity
- Learning tasks facilitation formation of the components of visual perception crucial for writing the reading
- Tasks for evaluating the development of visual perception and the assessing the preparedness for more complex operation with visual stimuli.

The method is of a didactic nature; it contains a variety of training materials (black-and-white and color, picture-based and sign-based, etc.). The number and sequence of exercises can be varied by the speech pathologist depending on the level of psychophysiological preparedness of the child to the development of reading and writing skills.

E. Sadchikova

NEW DIETETIC NUTRITION: GOAT MILK WITH HUMAN LACTOFERRIN

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Female milk protein Lactoferrin by having very obvious antibacterial properties is a very attractive biotechnology product as it can be used in baby nutrition as well as in pharmacology and cosmetology. Annual world market for lactoferrin is estimated at the level of \$6,5 billion dollars.

Babies on artificial nutrition when treated with human lactoferrin will increase antiviral and anti-microbe immune status until the full own immune system is formed. Specialists think that goat milk with lactoferrin can by 10 times reduce mortality rate due to gastroenteritis among babies on artificial nutrition.

Institute of Gene Biology, Russian Academy of Sciences within the Intergovernmental program (Russia-Belarus) has created gene constructions that allow to produce economically viable volume of human lactoferrin in the milk of transgenic animals. Transgenic laboratory mice have average expression of human lactoferrin in their milk as high as 10-20 g/l, with a maximum of 40 g/l. Maximum concentration of lactoferrin in women's milk is only 5 g/l.

Research has shown that transgene and the expression level of human lactoferrin are inherited by several generations. The human lactoferrin produced in the milk of transgenic animals had the same physical and chemical properties as the lactoferrin from female milk.

At present an extended effort is under way to make primary transgenic goats that produce human lactoferrin with their milk.

Upon initial quality assessment of prime transgenic goats the best producers will be chosen that will start the new breed of goats with human lactoferrin in their milk.

Goat milk is hypo allergic and well assimilated.

Goat milk with human lactoferrin will be the first commercial product as a dietetic artificial nutrition for babies. Research on the goat milk lyophilizing technology has started.

O. Safonicheva

THE ROLE OF THE EMOTION STRESS IN THE FORMATION OF ADAPTATIONAL DISEASES

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Stress is known to be the reason of psychosomatic diseases, such as infarct, hypertension and many other adaptational diseases. On the other side, the problem of the endoecological crisis is being discussed by leading specialists of different branches of medicine. More

specifically this problem is formulated by Academic V.P. Kaznacheev: If a majority of the population of Russia suffer from toxification of the body, we can talk about a new type of specific epidemic of endoecological disease, various clinical forms of which are realizing in numerous nosologic variants". We would like to suppose the post-stress reactions to become the non-specific base of psychosomatic diseases.

Materials and methods: 475 patients with combination of musculoskeletal pain in the cervical part of the vertebral column and visceral problems were examined.

The main complains were: chronic headache, and rigidity in the shoulder girdle, pain in the chest, syndrome of chronic tiredness, chronic respiratory infections, and various visceral organs syndromes.

Visual diagnostic and palpation were used to indicate express-diagnostical criteria of poor lymph outflow and mechanical obstacles that lead to retrograde lymph flow at all stages of its movement to subclavicular veins.

Clinical examination (visual coordinate method and palpation) revealed pathobiomechanical disturbances: shorten muscles of the anterior part of the chest and neck, kyphosis of the chest, hyper extension of the neck region of the spine, ventral and frontal displacement of the gravity centre; and lymphodynamical disturbances - edematosity of the axillary and subclavicular zones.

Clinical observation allows us to offer some statements:

Discussion: Non-specific muscle syndromes can be called syndromes of uncompleted movements" since lower thoracical, lumbal and sacral regions of vertebral column make fixated position opposite to the fixated position of upper thoracical and cervical regions of the spine.

Musculoskeletal pain is caused to displacement of gravity center and located in overburden muscles of lower extremities and trunk that try to return the body to the vertical axis.

New chains of non-specific base of adaptation^{al} diseases are:

emotional stress - the psychomotor reaction of the body (because e-motion" means external motion) lead to muscle spasm and redistribution of liquid between muscle level and skin level. Trigger points are formed in muscles and depot of interstitial liquid is formed in the skin corresponding to neurolymphatic points. Those points of additional fixation keep the dysfunction of muscles, compression of underskin nerves, vessels, lymphatic nodes and blocade interstitial liquid circulation.

Disturbances in the connective-tissue construction lead to formation of 3-levels tunnels as syndrome of upper aperture of the chest": intervertebral (compression of nerves), intramuscular (compression of vessels) and intrafascial (compression of lymphatic nodes). Retrograde lymph flow and toxification of the body are suppose to become the grain for specific pathological processes.

The scheme of non-specific correction of biomechanical, lymphatic disturbances and restoration the centre of gravity using soft-tissue non-traumatic manual techniques is worked out in Moscow medical academy.

The meridian release technique is specific diagnostical and therapeutical method of manual medicine that base on principles of energy-flow through the meridians and informational qualities of connective tissue.

Conclusion.

1. Stress emotion reaction (as the reply in the case of unpleasant, unuseful information) - is always psychomotor reaction. Muscle spasm is the beginnig in the chain of formation of 3-levels tunnels: intervertebral for nerves, intramuscular for vessels and intrafascial for lymphatic nodes.

2. Biomechanical and lymphatic disturbances suppose to be the main non-specific base and reason of the musculoskeletal pain syndromes and psychosomatic diseases.

3. Soft - tissue manual therapy promotes balanced functioning of systems, providing circulation rate autoregulation for optimal work of the brain, visceral organs, musces and all tissues. This technique we recommend to use not only as a therapy, but also as prevention

S.S. Shichalev

CANONS OF HEALTH FROM THE POINT OF VIEW OF KINESIOLOGY AND REFLEXOTHERAPY

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Modern medicine is the science of diseases. About health it knows almost nothing. Not each man with normal laboratory indexes is healthy or vice versa. Researchers are trying balance between pre-disease and disease working out the methods of early diagnosis. However, mo matter on what stage a disease is stated, it is already there, which means a flaw in the integrative system “human body” and its progressing is just the matter of time. More effective would be to determine the parameters of health and preserve them. Kurgan Center for Kinesiotherapy and Rehabilitation has made an attempt to do it.

As basis for the search kinesiotherapy by S.M.Bubnovsky was chosen. It affirms that each muscle of the healthy body should contract freely and painlessly along the full amplitude and with proper intensivity. Normally human muscles easily cope with the body weight. Then we correlated the contracted muscles with reflexotherapeutical meridians and biologically active points (BAP). This enabled to monitor functional conditions of internal organs according to the state of the corresponding muscles and directly impact on target-organs by the method of kinesiotherapy. So a muscle or a group of muscles that does not live up to necessary attributes of strength, elasticity, homogeneity and painlessness is being working out at corresponding fitness equipment with the given amplitude of the movement, trajectory and load. The period of achieving the norm depends on age, health condition and patient’s motivation and makes from 2 weeks to 2 months. There is a crisis period characterized by weakness, enhancing of pain, set-back of the chronic pathology

and a corresponding restructuring of homeostasis: growth of muscle mass with the parallel growth of capillaries and nerve endings, rise in activity of all ferments, acidosis due to salt disappearance and fat burning. Crisis may last from a day till a month, 20% of the patients without real signs of deteriorating of the condition give up the course because of angst or feeling of discomfort. Muscles as diagnostic attribute possess a large range of conditions corresponding to the harmony of meridian system which means health as a whole.

Consequently to keep the body healthy is not too difficult. The analysis of oriental physical practices (yoga, tsigun, ushu, taidzitsuan) showed that elaborate movements and postures work out all the meridians, in all possible modes of muscular functions rewarding the practitioner with a long life and a high quality of life. The same effect was achieved due to kinesiotherapy, which is carried out under comfortable for a western man conditions of a gym or fitness studio but with the consideration of the basic principles of Orient. Thus it is possible to impact points and meridians by accumulation of muscle strain and relaxation, contraction and stretching at different combinations and modes in the same way as by acupuncture and acupressure. But by these self-produced movements stimulate neuromuscular joints; subcortical elements and cerebral cortex, which prolongs the therapy effect. Thus, the patient gains confidence, his fears are gone, he behaves himself as a healthy man, his value system undergoes correction as well. This facilitates the development of preventive medicine, from which each citizen benefits as well as the state.

L.A. Shpagina
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O.N. Gerasimenko
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THE EFFICIENCY OF REHABILITATION TREATMENT USING ENTERAL NUTRITION IN THE SURGICAL CLINIC

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Different conditions including peritonitis during acute surgical pathology are the most frequent cases of death in the surgical clinic. In spite of achieved successes in the spread peritonitis treatment due to development of the antibacterial therapy methods and use of modern medical technologies lethality in the postoperation period is from 28 % to 83.7 %. Counting on the point of view of some authors such high lethality due to this pathology is conditioned by sever infringements of metabolism and development of protein-energy insufficiency (I.N. Liederman, M.A. Everesh 2004). The significant role of protein-energy insufficiency is considered in the polyorganic pathology development (Schlichtig R., Agres S.M. 1988). Due to literary data 40 % of the patients with spread peritonitis in Russian clinics are in the condition of alcohol drunks or have chronic alcohol intoxication in anamnesis and therefore disadvantageous somatic background.

Modern detoxication therapy with early adequate nutritional support is the one of the

perspective programs of critical conditions correction in urgent surgery.

We had 28 patients with acute surgical pathology, with alcohol intoxication and 2 stage endogenous intoxication development. We carried out nutritional support in the postoperation period with the nasointestinal intubation of intestine in the case of estimate of enteral nutrition efficiency.

All patients were men, average age $44,7 \pm 8,4$ years. Nosological characteristic of peritonitis is presented by destructive appendicitis, destructive cholecystitis, ulcer perforation of the stomach and duodenum, perforation of intestine and colon. 80 % of the observed patients at the moment of the beginning of nutritional insufficiency. Enteral nutrition was carried out in 8 -12 hours after operation through nasoduodenal bougie established during the operation. Definition of energy requirements was carried out using Harries-Benedict formula. Nutrition was carried out using standard lactose free isokalories blends: Nutrison Standard, Nutricomp standard. Nutrition was carried out with not interrupting method during 18-20 hours (Burtov A.V., Evdokimov E.A., Kostuchenko A.L., Liederman I.N., etc 2003).

Criteria of efficiency of early use of enteral nutrition in the patients rehabilitation are clinic-laboratory indices, including antropometric data, albumin, transferrin, nitrogen balance, lymphocytes, length of artificial ventilation of the lung, level of endotoxines, duration of being on reanimation bed.

Results of research testify to decrease of endotoxines in patients decrease of use of use of blood specimen, protein parenteral specimen, decrease of organic infringements and complications in postoperation period.

Therefore early nutritional support using nasointestinal intubation of intestine is perspective and pathogenic proved and effective method for rehabilitation of people with chronic alcohol intoxication in postoperation period during protein energy insufficiency.

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V.V. Astashov
T.A. Astashova
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G.F. Chernenko
Yu.I. Borodin

METHODS OF PROPHYLACTIC LYMPHOLOGY IN PROGRAMS OF REHABILITATION OF WOMEN

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Despite of significant progress in development of new medical technologies, wide use of synthetic medicines, the problem of reproductive health as men's and women's is one of the most significant for qualitative change of demographic situation in Russia. Genital chronic pathology leads to severe structural changes in tissues, to disturbances of ovarium – menstrual cycle in women, spermatogenesis in men and finally to barrenness

or tumor growth. This problem was considered to be the precondition to development of qualitatively new improving approaches directed on restoration of reproductive health of men and women in different age and physiological periods of life. The long-term investigations carried out in the Institute have shown ability of regulation of lymphatic region functions of true pelvis organs by means of such methods as lymph-stimulation, lymph-protection, lymph-correction. It is proved that irrespective of nosology in all stages of disease development endotoxiosis takes place in female organism with obligatory involving of lymphatic system and development of a local tissue toxicosis. Female organism with hormonal disturbances and chronic inflammatory processes is in condition of vitamins, microelements, antioxidants dysbalance, besides endotoxiosis. Use of methods of preventive lymphology allows to reduce considerably regional lymphotoxicosis and with that to expand abilities of pathogenetic therapy of both inflammatory and dys hormonal-dystrophic genital diseases. In the Institute methods of lymphotropic actions of curative waters, muds, sorbents of various origin, products from Siberian vegetative raw material, containing polyphenolic complexes, and physiotherapy are developed and applied in experiment, clinic and in sanatorium practice. On this experience series of phytosorbent biostimulating complexes is created, permitting to raise women health potential due to additional consumption of vital components - food fibers, bioflavonoids, micro-macronutrients, phytohormones (functional food «Fitotopan», «Lymphovit U», «Lymphovit K», «Lymphovit», «Berezhnik» and «Bereginya», «Lymphovit P» and «Harmony Vita P», «PikSil»).

Except for correction of dietary background, methods of preventive lymphology include complex use of the techniques with detoxication effect - stage-by-stage sorbent therapy, "unloading" of the regional genital lymphatic channel and stimulating of drainage function of the lymph nodes, then physiotherapy and (or) chronoimmunomodulating therapy in the programs of health improvement of women. Physiotherapy includes local techniques with proved effect on the lymphatic system - ultrasound, necessarily with medicines, ultrasonotherapy or electrophoresis with medicines. Combined use of sorbent therapy with subsequent carrying out of physioprocedure on the true pelvis organs, chronoimmunomodulating therapy and use of functional foods permits to achieve both lymphoprotective and lymphostimulating effect, strengthening and cumulating effects of action. The offered program and methods of rehabilitation therapy have been introduced and are widely used in sanatoria and resorts of Siberian region and Altai territory.

Such complex of methods of preventive lymphology with use of ecologically pure products is directed on stimulation of own protective forces of female organism and is recommended for health improvement and rehabilitation of women.

A.I. Sukhanov

MODERN METHODS OF A COMPOUND CORRECTION OF THE ORGANISM'S DISORDERS IN DIFFERENT AGE GROUPS

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The Purpose: We propose a rehabilitation method for different dysfunctions of human physical condition.

Methods: We apply special medical tools for spine treatment to improve and normalize spinal cord and spinal cord ganglions function, which enables us to provide efficient medical treatment improving and developing the organism's abilities. It's a new way to solve acute problems of healing of the allegedly incurable diseases. Today the study of natural means of correction of the organism's dysfunctions is an important task for healthcare.

The primary problem is an absence of the percent assessment of the physical condition in the norm and by pathology. These disorders are corrected neither in the newborn nor in the adult. According to the clinic's experience, we have managed to correct joint dysplasias and metaplasias in mature patients. We can stop the deterioration in any chronic somatic disease. The restoration of genetically normal structure is possible due to a complex correction that is carried out in conjunction with physical exercises and the supply of essential microelements and the development of capillaries required for the recovery.

And finally, there is a restoration of brain-and-periphery-connection in the restored structures that are controlled by the CNS.

The important part of the complex medical treatment is a mechanical impact with the use of manual work, medical tools and special equipment directed to the affected organs and body systems. The third component – is the selection of natural preparations for biochemical correction of the organism dysfunctions.

The correction of microelements with the organism's disorders developing locally or on the whole is understudied yet. During elaborating rehabilitation schemes of the physical condition it is of vital importance to concentrate on a balanced supply of the structurally required microelements necessary for normalization of the pathologic condition. The access of microelements to the locally affected organs is often difficult without the definite manipulations than improve the blood flow (and outflow), which has all the required elements for the structural and functional restoration. Moreover, the forced microbiological compensation together with the definite manipulations impact that promote blood flow and bio availability should be prolonged, persistent and intense. The intensity of the microelements supply as well as the impact that promotes their availability plays an important role especially during the initial period of treatment and correction of the disorders. All this should be combined with the ion process of biogenesis.

The fourth component is a breath correction. All this enables us to achieve a better result in the treatment of bronchial asthma, MS, systemic lupus erythematosus etc.

Result: We provide this medical treatment for children and adult. For 20 years we have cured more than 5 000 patients. Today a back pain is a serious problem as an independent disease, which induces different pains and pains in organs as well, since organ dysfunction depends on innervation disorder in these organs in case of the injure spinal function.

Conclusion: the proposed methods have been practiced in our clinic practice for more than 20 years. We elaborated the theory of electro functional pain development, reflex-correction therapy, biochemical correction. One can say with certainty in future all those elaborations will be useful and meaningful.

F.V. Takhavieva
E.S. Zinnatullina

TREATMENT OF THE SECONDARY MYOFASCIAL PAIN SYNDROME IN PATIENTS WITH POSTSTROKE HEMIPARESES

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Rehabilitation of patients with poststroke hemipareses, complicated by secondary myofascial pain syndrome is actual problem of neurology and rehabilitation medicine because of the high incidence of these phenomena in patients, who had brain stroke.

We studied clinical aspects of pain syndrome and its correlation with motor symptoms in 142 poststroke hemiplegia patients on different stages of the illness.

In the study we suggested treatment methods of pain syndrome and evaluation of its efficacy in different stages of rehabilitation of poststroke patients.

Myofascial pain syndrome, associated with trigger zones, develops in 80% of patients during the first several weeks after cerebral stroke and it severely complicates rehabilitation of motor functions, decreases patients' routine activities.

Most common localization of triggers in the paretic upper extremity is biceps and deltoid (40%) and also subscapular muscle (33%). In the paretic lower extremity myofascial syndrome occurs rather rare and it is characterized by mostly common localization in the rectus muscle of the thigh.

The combination of cryotherapy and stretching is most effective in early stages of rehabilitation in patients with cerebral hemipareses. In later stages it is a combination of cryotherapy and stretching with injections of local anesthetics in trigger zones.

Cessation of pain syndrome as well as the traditional methods of rehabilitation (massage, exercises) contributes to increasing of the muscle strength and volume of movements, improves a social adaptation of patients with motor disturbances after cerebral stroke.

O.G. Tyshenko
T.I. Sidorova

DIE OPTIMIERUNG DER REHABILITATION DER ARTROSEKRAKEN IN KURORTEN UND SANATORIEN DURCH DIE ANWENDUNG DES MEDIZINISCHEN OZONS

Sanatorium „Barnaulskiy“, Barnaul, Russland

Erkrankungen der Gelenke (Artrose) – ist ein aktuelles Problem der modernen Medizin. Die Behandlung in Kurorten und Sanatorien ist eine der Phasen in der komplexen Rehabilitierung der Patienten mit dieser Pathologie.

Im Sanatorium „Barnaulskiy“ werden seit dem Jahr 2000 zur Behandlung der Kranken mit der Pathologie des Bewegungsapparats verschiedene Methoden der Ozontherapie angewendet.

Das Ziel dieser Arbeit war Auswirkungen des medizinischen Ozons in Zusammenarbeit mit der physikalischen Prophylaxe zu finden – Elektrostimmulierung des Gewebes bei Patienten mit Arthrosen des Kniegelenks.

76 Menschen, im Alter von 45 bis 65 Jahren, beider Geschlechter, die an dieser Pathologie litten, haben im Sanatorium „Barnaulskiy“ eine Kur durchgemacht. Die Behandlungsdauer betrug 21 Tage. Die Ozontherapie wurde mithilfe des Apparates „Medozons“ als subkutane oder intraartikuläre Injektion durchgeführt, von 5 bis 8 Mal täglich nach dem Schema. Die Stimulierung des Gewebes – mit dem Gerät ESP-01 (nach der Methode des A.A. Gerasimov), 3-5 mal am Tag, jede 2 Tage.

Alle Patienten wurden einer gesamtklinischen Untersuchung entzogen, einer Ultraschalluntersuchung und/oder Röntgenographie der Gelenke einen Monat vor und nach der Behandlung.

Nach der ersten Prozedur minderte sich der Schmerz um 58%, nach 3-4 Prozeduren das Verschwinden der Schmerzen im Ruhezustand und auch bei Belastung, eine Vergrößerung des Bewegungsvolumens des Gelenks um 89%. Der unmittelbare Effekt betrug 98%. Es gab keine Verschlechterungen des Zustandes. Die Ultraschalldiagnostik zeigt eine Verbesserung um 52%.

Das Studium der fernen Ergebnisse hat die Erhaltung des guten klinischen Effektes im Laufe von 5-8 Monaten aufgezeigt, es ist eine Verkleinerung der eingenommenen Medikamente (entzündungshemmende Mittel und Analgetika) in 74 %, die Aufhebung der Präparate in 26 % der Fälle bezeichnet.

So, zeigt die komplexe Behandlung der Kurgäste mit der Pathologie der Kniegelenke im Sanatorium „Barnaulskiy“ positiven Effekt und gibt stabile Ergebnisse, wie unmittelbare, so auch Langzeitfolgen, trägt positiv beim klinischen Ablauf der Krankheit bei, verbessert den Gesamt- und emotionalen Zustand der Kranken, verbessert die Lebensqualität der Patienten.

V.S. Vasilevich

APPROACHES TO ALTERNATIVE TREATMENT OF ILLNESSES OF MUSCULOSKELETAL SYSTEM, THE LOWER EXTREMITY VENOUS SYSTEM, SKIN, METABOLISM, THE CARDIOVASCULAR, NERVOUS AND RESPIRATORY SYSTEMS, THE GASTROINTESTINAL TRACT, THE UROLOGICAL AND GYNECOLOGICAL SYSTEMS

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The modern medicine being extremely successful in diagnosis and treatment in its rush has lost the ability to perceive the man an integrate being. Practitioners of the conventional medicine refuse to see an inner relationship between the man and the illness viewing it as a regular technical problem, which should be fixed without the patient. Only coming back to basics of natural medicine gives people the single chance to gain their health both physically and spiritually! Developing of different illnesses directly related to the degree and severity of the processes of imbalance in the human body. Therefore, not a definite disease should be treated but the organism as the whole strongly appealing to the natural body resistance.

We managed to solve this problem establishing unique clinic of contract treatment (with money back guarantee) specializing on (phytotherapy, bee venom therapy, aromatherapy, homeopathy, reflexotherapy). We work with such illnesses as: arthritis, arthroarthritis, osteoarthritis, ankylosing spondylitis, varicose veins, trombophlebitis, trophic ulcer, elephantiasis, erysipelas, dermatomycoses, carbunculosis, furunculosis, psoriasis, obesity, arterial hypertension, menstrual ovulatory irregularities, osteochondrosis, thyrotoxicosis etc.

One of the treatment priorities is healthy food since after the food imbalance in the patient is overcome we have solved the half of the existing problem. There is no stereotype of treatment; we work out a treatment course for every patient individually. We apply medications for peroral and dermal administration prepared on the author's formula based on medicinal plants; apitoxin, pollen, propolis, beeswax (ointments, creams, gel, liquids, emulsion, mixtures, extracts, tinctures, decoctions, powders, drops). The treatment course lasts 1,5-2 months. One of the leading places in the treatment belongs to apitotherapy. Its average course is about one month. The exposure to bee stings on biologically active points known from reflexotherapy is carried out with certain know-how as reflexotherapy is concerned.

This method is absolutely safe and has no contradictions due to simultaneous administrations of many other medications against allergic reaction to bee stings is also used. In our clinic 8766 patients were treated

Among them with:

psoriasis - 6%;
erysipelas - 3%;
varicose veins -15%;
ankylosing spondylitis - 2%;
arthroarthritis - 3%;
arterial hypertension - 7%;
menstrual ovulatory irregularities - 9%;
osteochondrosis - 8%;
dermatomycoses -5%;

obesity -7%;
trombophlebitis - 7%;
trophic ulcer - 3%;
arthritis - 9%;
osteoarthritis - 4%;
elephantiasis -2%;
carbunculosis, furunculosis - 4%;
thyrotoxicosis - 3%;
other - 3%.

In all cases after one treatment course clinical recovery or steady remission was observed in 100% percent of the patients. The clinical experience shows our method as one of most effective and safe for therapy of the above mentioned diseases.

Therefore, we are stating with all the responsibility that the present treatment should find its proper if not a leading place among the existing conventional methods.

M.O. Vezirishvili

INCREASE OF ORGANISM ADAPTATION TO EXTREME LIFE CONDITIONS. (IN CONDITIONS OF SPACE FLIGHT)

Joint-Stock Company «PARAPHARM», Moscow, Russia

Preservation of health in space by means of natural remedies – is an extremely tempting idea. Especially if taking into consideration the prospect of mass flights, including tourist space flights. Life conditions during space flights are extreme: weightlessness, vibration, radiation, change of habitual rhythms, reorganization of work of digestive and other systems.

Thus even the ordinary synthetic medicines can unpredictably influence the organism in such stressful conditions. Therefore the experts pay more and more attention to natural remedies, well - “recognized” by the organism, related to its structure, practically excluding unforeseen reactions.

The certain researches in this direction have been lead both in ground conditions and in conditions of flight .To present time the following bioactive food supplements: Rhodelim, Gasterol, Herbasprin and Trioson are officially included in delivery of health care of the Russian segment of the international space station.

“Rhodelim” – is a complex phytoadaptogen, at first has successfully passed the profound tests in ground and then was delivered to orbital station. The decision on deliveries to the space station of three following bioactive food supplements was based on needs for preventive maintenance of possible infringements of cosmonauts’ functional

conditions after studying all the components of these bioactive food supplements and their successfully clinical tests. There is the brief characteristic of bioactive food supplements included in the onboard first-aid set:

«Gasterol» is intended for maintenance of gastrointestinal tract, processes mild purgative effect, promotes peristalsis of intestine, improves digestion, reduces meteorism, promotes deducing of slags and products of exchange. Clinical tests have confirmed both positive influence of the preparation on gastroenteric functions and the general improving influence on the organism.

«Herbasprin» is herbal analogue of aspirin. Clinical researches have confirmed anti-inflammatory, soft soothing actions. It is important, that the preparation is suitable for long application.

“Trioson” is a mild sedative remedy. Clinical researches have shown efficiency of use of this bioactive food supplement at early stages of insomnia and during stresses.

Thus, the reference to the natural sources today characterizes the most advanced areas of medicine. In many other cases, including unusual conditions in which people can find themselves, natural preparations are capable to give absolutely safe and, finally, effective help.

V. G. Zilov

**ONE OF THE METHODOLOGICAL PROBLEM IN INTEGRATED
MEDICINE IN RUSSIA**

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The great interest of both physicians and inhabitants to nonconventional therapies is demonstrated in Russia for last decade. From one hand this interest can be explained with the high prices for remedies and numerous side-effects when pharmacotherapy was used. From another hand the increase of a number of scientific papers in medical journals where successful results when various pathologies were treated with acupuncture chiropractic etc. become an additional stimulus to rise those interest.

However, the division of therapies on orthodox and nonconventional ones is presented in Russia. The absence of profound scientific studies of curative effects of numerous methods of nonconventional therapies supports a scepticism in representatives of orthodox medicine to nonconventional therapies. This situation is considered to be an obstacle on the way to broad use of integrated healthcare in Russian medical practice.

Mentality of Russian orthodox physicians can be changed only when methodological aspects of both orthodox and nonconventional medicine will be clear to everybody. First it is necessary to stress that the main goal for both of medical branches is the restoration of homeostasis which was changed during disease. However the specificity in normalization of homeostasis can be observed when methods of orthodox medicine and nonconventional

therapies are used.

Curative effects of numerous methods in nonconventional therapies which were based on selfregulatory principle can be explained via influence on “internum” of an organism. As for orthodox medicine – its methods also include the effects on environmental agents when so-called ethiological or causal therapy is used.

One can easily find that methods of orthodox medicine act according to one of Hippocrates principle “*contraria contrariis curantur*”, when the basic principle of homoeopathy, one of nonconventional therapy, is the other Hippocrates one “*similia similibus curantur*”.

Those specificities for orthodox and nonconventional medicine let to support an idea to combined use of methods of above mentioned therapies in practice and that nonconventional therapies can be not only alternative but also complementary to orthodox medicine.

Now there are some examples when integrated healthcare is more effective in therapy of various diseases in comparison when isolated methods of orthodox and nonconventional medicine were used.

Combination of acupuncture, homoeopathy and psychopharmacology was found to be very effective in the cases of psychosomatic and somatopsychic pathologies (A. Mikhailova, 2003). Complex manual therapy and homoeopathy were demonstrated good results to decrease pain in the cases of osteochondrosis (A. Kartzev, 1992). Dystrophic diseases of vertebra and leg joints were successfully treated when manual therapy, electroneurostimulation and neuroorthopaedic therapies were used (V. Frolov, 2005). Ischemic heart disease were curative better on 15-17% when acupuncture together with routine pharmacotherapy were used in comparison with isolated drug therapy (I. Paltzeva, 1995, O. Iljina, 1998). Those data with the increasing papers about positive results obtained when combined therapies of various diseases are used let to hope that understanding of Russian physicians that nonconventional therapies are complementary ones towards the orthodox medicine will lead to more productive achievements in medical practice.

L.P. Tarasenko
V.A. Gurieva

**NEW ADVANCED TECHNOLOGIES OF NON-MEDICAMEN-
TOUS TREATMENT OF WOMEN AT SANATORIUM
“BARNAULSKY”**

Sanatorium «Barnaulsky”, AGMU Barnaul, Russia

Ozonotherapy has been successfully practiced in the Sanatorium “Barnaulsky” for rehabilitation of gynecology patients for 2,5 years. There were 182 women of all age groups.

Ozonotherapy occupies the leading place in the treatment of chronic infection

of different localizations and etiology. This includes urogenital infections inducing vulvovaginitis, menstrual irregularities and pathologies of the uterine cervix, miscarriages, infertility, specific vaginitis of pre- and postmenopausal periods and discomfort in sexual spheres.

Special attention is paid to pregnant women since ozonotherapy is more preferable as a medicamentous therapy. It is used for prevention of fetoplacental insufficiency, gestosis, intrauterine growth retardation (IGT), intrauterine developmental defect (IDD) as well as treatment of diabetes in pregnant women and sanation of chronic focal infection.

Complex non-medicamentous treatment enables to mobilize a compensatory-adaptation reaction in mother and fetus, preventing disorders of uteroplacental blood flow and morphological pathologies in the placenta.

Ozonotherapy was effectively applied for treatment of bacterial infections (chlamydia, ureoplasma, mycoplasma, gardnerela, Candida) and viral infections (herpes simplex virus (HSV), cytomegalovirus (CMV), human papillomavirus (MPV), which often attribute for miscarriages. These patients were treated with intravenous infusion of ozonized physiological solutions and local treatment with ozonized oil tampons.

As pre-gravidar preparation ozonotherapy is a new effective and irreplaceable method.

We observed positive results for the treatment of pelvic and vaginal pains in endometriosis as a complex treatment (local ozone blockades, sprinkling and oil ozonized tampons).

Ozonotherapy provides multifaceted actions: anti-inflammatory, bactericidal, antiviral, immunomodulating, antihypoxic, analgetic, improving tissue trophism. All this is necessary for solving the pre- and postmenopausal problems such as atrophic vaginitis. Estrogen deficiency causes reduction of barrier function of vagina epithelium and is accompanied with frequent occurrence of vaginal infections induced by autoflora.

In the sanatorium 67 women with this pathology were treated. The degree of clinic al manifestations was assessed on microbiological test of vaginal smear, Bochman index of vaginal health in points. The degree of atrophic vaginitis was estimated on karyopyonetical index in percent and estimation of the general condition – on Kupperman menopausal index modified by E.V.Uvarova. The efficiency studies were conducted with a 1-3-6-month interval.

The findings displayed the advantage of ozonotherapy comparing to medicamentous therapy (improvement of neutrophil phagocytic activity, tissue trophism, reduction of recurrences, 100% tolerance, no allergic reactions and dispeptic disorders).

Ozonotherapy optimizes the impact of medications that leads to decrease of doses and shortening of the treatment course.

For us the ozonotherapy is priority treatment both as a monotherapy and as a combination with physiotherapy methods.

I.V. Tikhonov
 V.V. Astashov
 T.I. Sidorova
 T.A. Astashova

EFFICIENCY OF REHABILITATION DUE TO COMPLEX USE OF LASER, MICROWAVE THERAPY AND PHYTCORRECTION WITH THE DIETARY SUPPLEMENT «FITOPAN M» IN CIRCULAR PROSTATITIS PATIENTS UNDER SANATORIUM TREATMENT

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The proportion of circular prostatitis (CP) in the general structure of chronic prostatitis is widely known. Many of the existing medicamentous treatments of CP do not produce the expected result. The efficiency of the treatment significantly increases if the therapy includes physiotherapy and phytocorrection.

In the andrology section of the sanatorium “Barnaulsky” 58 CP patients aged 20-38 years selected from the family couples visiting the Sanatorium. All the patients reported pain and disuric syndromes. More than the half suffered from erectile or copulative dysfunctions.

All patients were divided into three groups. All of them received climatic treatment in the sanatorium. Besides, the patients of the 1-st group (17 people) received the proposed 3 –stage complex. The first stage included intake of the biologically active food supplement «Fitopan M» in a form of tee (daily, in the morning). The second and third stages were carried out consequently and consisted of low intensity laser infrared radiation projected on the duodenum and thoracic lymphatic channel (3 minutes) and the perineal region on two points (J1 and J2, 4 minutes). Later on a 15-minute transrectal microwave treatment was carried out (equipment “Stella-1”). The patients of the second group (20 men) received «Fitopan M» and the laser on the projections of duodenum and thoracic lymphatic channel. The patients of the third group (21 people) received only «Fitopan M». The treatment of all three groups was conducted daily during 12 days. All groups were of similar patients regarding their age, clinical picture and concurrent diseases. In the first group in 70,7% of the patients a disappearance of the pain syndrom was reported, in the rest 29,3% there was significant reduction of its intensity. The second group reported on pain syndrom disappearance in 40% of the patients, its reduction – in 55%, no dynamics – in 15 % of the patients. Absence of the disuric disorders in the first group was stated in 70,5% of the men, in the rest patients – their significant decrease. In the second group the number of patient without discuric disorders came to 45%, reduction of its intensity was observed in 35%, no dynamics – in 20%. The amount of lecithin body in prostate fluid in the first group increased 2,5 times ($p < 0.05$); in the second group -1,3 time ($p > 0.05$). Strengthening of libido and erection during a sex intercourse was observed in 82,4% of the patients of the first group and in 55% of the patients of the second group. According to the data of the treatment in the third group there was a trend to improvement but the changes were not sufficient. The study of remote results showed that the remission period

in the patients of the first group lasts 3 years and more in average with normalization of erectile, copulative and reproductive function. Among the patients of the second and third groups the efficiency of the treatment and the remission period were not stable.

Therefore, the application of our treatment complex comprising transrectal exposure to laser and microwave treatment and diet correction with «Fitopan M» for the therapy of chronic prostatitis displayed a significant reduction of pain and disuric syndromes, stabilization of sex function, normalization of laboratory data and the duration of the obtained clinical effect comparing to other treatments.

T.E. Belousova

**DAS KOMPLEXE PROGRAMM DER WIEDERAUFBAU-
BEHANDLUNG DER NEUROLOGISCHEN KRANKEN**

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In die letzte Jahre steigen die negative Veränderungen im Umwelt. Verschiedene Arten der Verschmutzungen des Wassers und der Luft (chemische, toxische, bakterielle, elektromagnetische u.s.w.) beeinflussen auf die Gesundheit und Leistungsfähigkeit der Menschen. Auch die Lebensmittel mit dem hohen Inhalt der Konservierungs- und Farbstoffe, die Medikamente, die eine syntetische Natur haben, Hypodynamie, die informativen Überlastungen sind für den Menschen sehr schädlich. In diesen Bedingungen ist Bildung der Renovierungsprogramme, die wirklich wirksam sind, notwendig.

Das Ziel der Arbeit ist Bildung der komplexen Programme für die wiederherstellende Behandlung der Patienten mit den neurologischen Krankheiten.

Die Arbeit ist auf der dynamischen Beobachtung von 1057 Patienten gegründet: Kopfschmerzen - 112 Menschen, chronische zerebrovaskuläre Erkrankungen - 302 Menschen, Krankheiten der Wirbelsäule - 386 Menschen, periphere Neuropathien - 158 Menschen, vegetative Störungen- 99 Menschen. Man führte die Wiederaufbaubehandlung, die aus verschiedenen Kombinationen der physiotherapeutischen Prozeduren und medikamentöser Therapie besteht, durch. Als Heilmittel benutzte man antigomotoxische Präparate. Die Behandlung wiederholte man 1 Mal in 4-9 Monaten.

Die Methoden der Kontrolle. Die Effektivität der Behandlung wurde mit Hilfe der neurologischen Methoden und paraklinischen Erforschungen (EEG, MRT, USDG, EMG, EKG, die allgemeinen und biochemischen Analysen des Blutes, elektropunkturische Diagnostik nach Foll) verangeschlagt. Man benutzte auch Fragebogen der Lebensqualität, die Analogskala der Schmerzen, die Skala der Stimmung, der Aktivität und der Laune. Die Beobachtung der Patienten verwirklichte im Laufe 7-9 Jahre.

Die Ergebnisse. Es sind wirksamen Komplexe der Wiederaufbaubehandlung für 5

Gruppen der Patienten mit neurologischen Krankheiten entwickelt. Diese Komplexe gründen auf die optimalen Kombination 3 Gruppen der physiotherapeutischen Technologien : 1) Licht - Tone Relaxation für Normalisierung des psychophysiologischen Status der Patienten und Wiederherstellung der Leistungsfähigkeit 2) niederfrequenz - magnet - phototherapeutische Technologie für die Wiederherstellung der Funktionen des Nervensystems, des Herzkreislaufsystems, Immunsystems 3) Technologien der Aeroionotherapie und Sauerstoffsättigung-Therapie für die Regeneration des Nervensystems, der Haut, der Gefäße und des Atmungssystems. Akupunktur, Antigomotoxichetherapie und Hirudotherapie bildeten die Grundlage der Wiederherstellung. Alle Behandlungsmethoden wurden mit geringer Dosierung durchgeführt. Mit Hilfe dieser Behandlung ließen alle Symptome nach, man beobachtete Regeneration - Effekte. Die Wiederholung der Therapie verstärkte die Behandlungseffekte und verlängte die Remission - Periode bis 6-12-18 Monaten. Dieser Art der Wiederaufbaubehandlung schließt man allergische Reaktionen, tixische Wirkungen und die Gewöhnung aus. Dieses Behandlungsprogramm kann man in den Krankenhäuser und Heilanstalten durchführen. Bei Anwendungen dieser Methoden bleiben die Alte länger in Leistungskraft. Man versorgt die Profilaxis der chronischen Krankheiten bei Kinder und mittleren Alters Leuten.

T.E. Belousova

**TISSUE EFFECTS OF A LOW-FREQUENCY MAGNETOTHERAPY
AT HYPERTONIC ANIMALS IN EXPERIMENT**

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In structure of modern disease among chronic kinds of a pathology hypertonic disease (HD) occupies one of the first places. At an initial hypertension there is a widespread damage iontransport functions of a plasmatic membrane of cells of various fabrics, infringement membranous regulation, endocellular distribution of calcium and permeability for univalent cations in various cells, change of electric parameters of a plasmatic membrane (membranous potential) excitable and unexcitable cells (Postnov Yu. V., Orlov S.N., 1984,1985). Infringement catechistical an exchange in a myocardium and decrease regenerative properties of fabrics vegetative nervous of ganglion (Shvaley V.N. et all., 1992).

In complex regenerative treatment of patients HD frequently use a low-frequency magnetotherapy (LF MT). Research of influence of LF MT on catechistical an exchange and membranous mechanisms will allow to provide selectivity in application of LF MT for patients with an arterial hypertension, to reduce development of collateral reactions and to increase efficiency of treatment.

The purpose of research - to study features catechistical an exchange of heart, kidneys, adrenal glands and functions of plasmatic membranous aritrocititious and cinaptosous at hypertensive animals after course influence by a pulsing low-frequency magnetic field. Work is executed on rats with a spontaneous hypertension (Spontaneously Hypertensive Rats)-SHR (30 animals). As the control served homotensive rats of line Kyoto-Wistar Rats (WKY) (20 animals). Experimental group of animals subjected to total influence of a low-frequency pulsing magnetic field (LF of MT), generated by device "Magneter". The rate of influence has made 7-10 days for 20 minutes daily.

Results. The analysis of a condition adroenergy nervous textures of heart, kidneys and adrenal glands has allowed to establish, that under influence of LF of MT there is an increase in parameters of density adroenergy nervous textures in above named bodies. The degree of intensity of a luminescence in nervous textures of kidneys, rich sympathetic therminals, has increased. In an intimate fabric synthesis catechistical, on the contrary, has been limited. This process develops in adrenal glands hyportensive rats that displays features regularative mechanisms at the given animals twice more actively. The received data also testify to the expressed influence of LF MT on electric and iontransport properties of plasmatic membranes of various cells of experimental animals. Depolarizator a plasmatic membrane of the nervous terminations and amplification of absorption of ions of calcium by them after a rate of LF MT at normotensive rats (WKY) testifies to presence of the mechanism of influence on balance of processes in the central nervous system. After increase inside(within)synaptosomous concentration of ions of calcium there is an amplification of liberation of adrenaline, noradrenaline, various albuminous and steroid hormones. The smaller effect of influence LF of MT on synaptosomous rats SHR in comparison with the control specifies that initially neurohormonical the system at hyportensive objects is in a condition of a pressure. The unidirectional influence of LF of MT on electric parameters and various kinds of ionic transport in aritrocititious rats of lines WKY and SHR allow to apply this kind of therapy at patients HD by local and segmentary techniques.

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**PHYSIOTHERAPEUTIC METHODS FOR STIMULATION
OF HAEMOLYMPHOCIRCULATION AT THE DIABETIC FOOT
SYNDROME**

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Among late complications of diabetes mellitus the most serious are lesions of heart, kidneys, eyes and feet, however pathological process in the feet takes leading positions in this list. Development of expressed and not always convertible pathological changes,

high frequency of amputations of the feet results in significant decrease of «qualities of life» and a high degree invalidization of such patients. Pathogenesis of infringements in a blood vessels at a diabetic foot syndrome is described in the modern literature in details, at the same time there are no data on features of diabetic changes in lymphatic system of lower extremities. The estimation of a functional condition of a lymphatic vessels at a diabetic foot syndrome is important for complex diagnostics of pathological process. Search of ways of influence on lymphatic system is actual with the purpose of correction of infringements of haemolymphocirculation at patients with a diabetic foot syndrome.

The purpose of the present research became studying of features of haemolymphocirculation at an initial stage of a diabetic foot syndrome and a substantiation of application of electrostimulation and low-frequency ultrasonic therapy for correction of infringements of haemolymphocirculation. 116 patients with diabetes mellitus (2nd type) with the neuro-ischemic form of a diabetic foot syndrome without ulcerous damages (Wagner stage 0) were included in trail. Frustration of sensitivity of feet of a different degree of expressiveness, hypo- and areflection were revealed during clinical inspection at all patients. Reduction of peripheral blood flow, infringement of nervous-muscular conductivity were revealed at 88% of patients. The analysis of parameters of lymphatic outflow in legs revealed expressed increase of resistance of lymphatic outflow.

Complex therapy included blood glucose control, antiagregants, low-molecular heparine, α -lipoic acid, antioxidants, and also original techniques of lymphotropic therapies. For stimulation of processes of haemolymphocirculation we applied electrostimulative therapy on device "Lymphavision" and low-frequency ultrasonic therapy on device "Prolong".

In group of the patients who received only drug therapy, stimulation of the magistral blood flow without adequate amplification of lymphatic outflow was observed, that promoted progressing of the phenomena of stagnation of microcirculation in feet. Inclusion in the program of electrostimulative therapy allowed to improve an arterial blood flow. Also significant improvement of a condition of venous and lymphatic parts of microcirculation was achieved. Inclusion in the medical program of a low-frequency ultrasonic therapy allowed to reduce expressiveness of pathological arteriovenous shuntings at a level of feet due to restoration of blood flow in microcapillars. We revealed positive dynamics of parameters of venous and lymphatic outflow too.

Combined application of physiotherapeutic procedures resulted in improvement of a condition of all parts of haemolymphocirculation in legs. Efficiency of therapy due to mutual potentiation of methods was increased. The combination of electrostimulative and low-frequency ultrasonic therapies improves all kinds of sensitivity, reduces painful sensations in the feets, increases skin temperature of the feet, reducing a difference of temperature between shin and foot.

V.A. Kurashvili

RUSSIAN SOCIETY OF NATURAL MEDICINE

Russian Society of Natural Medicine, Moscow, Russia

When we first created Society of Natural Medicine programs in 1996, it was with a vision and purpose. I am honored to say that through the collaborative efforts of our dedicated international network of professors, clinicians/practitioners, and a distinguished Board of Directors, and our friendly and professional administration and staff, we have fulfilled many of our goals. We continue to grow and expand our student base and offerings through new programs and wide opportunities for education.

SNM has now established itself, by:

- Being one of the foremost educational institutions for Natural Medicine in the world through distance learning, practical training and clinical externship.
- Offering training programs that integrate healing practices and knowledge from all disciplines and cultures.
- Providing availability and affordability of education in Natural Medicine for people from all cultures and socio-economics.

A distinguished faculty of educators and practitioners providing more than 25 professors nationally and many more in our global affiliate institutions and centers. Programs can be entirely independent study by design or may include seminars, practical training, clinical externships, mentorship and/or research in the field. The seminars, practical and clinical trainings are available through our network of campuses, affiliate clinics and centers.

Our intention is to create competent and credible practitioners to be of service through education and healthcare by empowering individuals to take charge of their own health and well-being of body, mind and spirit. As a form of treatment that is said to be as old as mankind itself, it is interesting to notice that this most ancient form of medicine is coming back to challenge the most sophisticated system of medicine in the world's history. Today, the World Health Organization estimates that, worldwide, herbal medicine is three to four times more commonly practiced than conventional medicine.

It can be said that the origins of modern medicine, with its heavy reliance on drug prescription to treat specific diseases, lie in herbal medicine. Some of the best modern drugs are purified products of herbs, and in worldwide use. Primitive tribes still use their traditional knowledge of plants and their healing properties and, in early civilizations, food and medicine were closely linked together, as many plants were eaten for their health-giving properties.

Much of modern knowledge about the use of herbs can be traced back to ancient Egypt where the priests kept that knowledge. A papyrus from the city of Thebes dating back from 1500 BC lists hundreds of medicinal herbs, including many that are still in use today.

The ancient Greeks and Romans also were practitioner of herbal medicine and much of their knowledge has been passed on as their armies conquered the world and military

doctors took the plants and their uses with them. Two more cultures which have always relied very heavily on herbal medicine are the Chinese and the Indians and, to this day, China herbs play a vital part in health care.

In Russia, from the Dark Ages well into medieval times, herbals were painstakingly hand-copied in the monasteries, each of which had its own physic garden for growing herbs to treat both monks and local people. The crucial difference between medical herbalists and today's orthodox doctor is, firstly, that the herbalist looks at the patient as a whole, while conventional doctors look for symptoms which enable them to diagnose and treat diseases. They see the person as the carrier of a disease, whilst the herbalist regards the patient as a diseased person, requiring a holistic treatment. Secondly, the medical herbalist is using whole plants or plant products containing active constituents, while doctors use these constituents in refined and isolated forms or synthetics.

V.A. Kurkin

THE MODERN PHARMACOLOGY: TRADITIONS, PRIORITIES, NEW POSSIBILITIES

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In the present time the pharmacology as the science and educational discipline is of the great interest for pharmacologists and doctors. The pharmacology includes so traditional aspects as morphological, anatomical, chemical, analytical study of medicinal plants and also of natural products of the animal and mineral origin. The Pharmacopoeia of Russia contains about 270 medicinal plants, the descriptions of which are presented in several textbooks (D.A. Muravjeva, 1991; D.A. Muravjeva, I.A. Samylina, G.P. Yakovlev, 2002; V.A. Kurkin, 2004).

In the present paper is discussed the conception of the modern pharmacology. The new possibilities for the development of pharmacology gives the use of the thin layer chromatography (TLC), the high performance liquid chromatography (HPLC), UV-, IR-, ¹H-NMR-, ¹³C-NMR-spectroscopy, mass spectrometry and other modern chemical, physical-chemical and spectral methods. The TLC and HPLC are the most perspective methods for purpose of the standardization of the drugs and the phytopharmaceuticals. Besides, the modern standardization must be based on the use of standard samples in the analytical methods (identification and quantitative determination of biologically active compounds in the drugs and the phytopharmaceuticals). In the course of our investigations there were proposed the series of standard samples for purpose of the standardization of *Rhodiola rosea* L. rhizomes (rosavin), *Rhodiola rosea* L. tissue cultures (triandrin), *Salix viminalis* L. barks (triandrin), *Eleutherococcus senticosus* (Rupr. et Maxim.) Maxim. rhizomes (syringin or eleutheroside B), *Syringa vulgaris* L. barks (syringin), *Silybum*

marianum (L.) Gaertn. fruits. (silybin), *Betula pubescens* Ehrh. leaves, *Hypericum perforatum* L. herbs (hyperoside), *Fagopyrum sagittatum* Gilib. herbs (rutin), *Glycyrrhiza glabra* L. roots (glycyram and licuraside), *Populus nigra* L. buds (pinostrobin), *Salix acutifolia* Willd. barks, *Helichrysum arenarium* (L.) Moench. flowers (isosalipurposide).

The author of this paper has proposed the new chemical classification of the medicinal plants. In accordingly with new chemical classification there were introduced in the pharmacognosy so classes of biologically active compounds as phenylpropanoids, xanthones, quinones, ecdisteroids, monoterpene glycosides, iridoids, enzymes. The textbook (V.A. Kurkin, 2004) includes the descriptions of 25 new medicinal plants, namely: *Echinacea purpurea* (L.) Moench., *Syringa vulgaris* L., *Arctium lappa* L., *Viscum album* L. (phenylpropanoids), *Salix acutifolia* Willd., *Filipendula ulmaria* (L.) Maxim. (phenols), *Carica papaya* L., *Nigella sativa* L. (enzymes), *Galega officinalis* L. (alkaloids), *Ginkgo biloba* L., *Aerva lanata* Juss., *Lespedeza bicolor* Turcz., *Lespedeza hedysaroides* (Pall.) Kitag., *Phaseolus vulgaris* L., *Avena sativa* L., *Hibiscus sabdaraffa* L., *Helichrysum italicum* (Roth.) G. Don., *Fagopyrum sagittatum* Gilib. (flavonoids), *Juglans regia* L. (quinones), *Hedysarum alpinum* L. (xanthones), *Melissa officinalis* L., *Artemisia dracuncululus* L., *Populus nigra* L. (essential oil), *Tribulum terrestris* L., *Trigonella foenum-graecum* L. (saponins). Besides, it was critically revised the position of the some medicinal plants in the chemical classification: *Rhodiola rosea* L., *Eleutherococcus senticosus* (Rupr. et Maxim.) Maxim., *Silybum marianum* (L.) Gaertn. (phenylpropanoids), *Hypericum perforatum* L. (flavonoids), *Paeonia anomala* L. (monoterpene glycosides), *Leonurus cardiaca* L. (iridoids). It was established, that anthraquinones and naphtoquinones is should be to consider in the frame of quinones. In the modern pharmacognosy there was expedient to discuss the etymology of the medicinal plants, relationships between of the chemical structures of compounds and of their biologically activities. The structural elucidation of biologically active compounds makes it possible to dissolve and prognoses the pharmacological effects of phytopreparations. The above-mentioned aspects are considered in the descriptions of medicinal plants (subject "Pharmacological properties"), including in the textbook "Pharmacognosy" (V.A. Kurkin, 2004).

V.O. Zaporozhan
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**PHYSIOTHERAPY IN GENERAL PRACTICE FOR
REHABILITATION IN PATIENTS WITH CARDIVASCULAR
DISEASES**

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The usage of portative physiotherapy apparatus and methods in practice of GP-doctors was examined in 320 patients with cardiovascular pathology: ischaemic coronary disease (ICD), arterial hypertension (AH).

Simultaneously with the clinical findings the following factors were included into the

examination: electrocardiography (ECG), echocardiography (EchoCG), veloergometry (VEM), Holter monitoring ECG and blood pressure (BP).

With the aim of determining the prevalent influence of one of the other physical treatment factors (PTF) on the function of cardiovascular system 168 ICD patients (with stable angina pectoris of the II-III-d functional class) and 152 men and women with AH have been examined within the 46-72 age group. The data of ECG, VEM, EchoCG, and Holter monitoring have been analyzed before and after the influence of several methods of magnitotherapy and electrotherapy.

It has been found antianginal effects of magnitotherapy (on precordial area and zones of pain irradiation, low dosage of magnite induction) combined with medicines in complex rehabilitation of ICD patients. It has been noticed decreasing of episodes of stable angina (on 22%) and usage nitroglycerine (on 18%) per week in group used laserotherapy and atenolol compared with group of monotherapy of atenolol usage. It was found positive changes of repolarization by ECG, reducing S-T and T-wave changes by VEM and Holter monitoring ECG in 122 (72,6%) ICD patients.

It was established more decreasing level of blood pressure (BP) in group which combined atenolol with electrostimulation legs muscles (percutaneous sinusoidal modulated currents, portative apparatus) compared with atenolol monotherapy. Holter monitoring BP showed decreasing day and night levels of BP, percentage of non-dipper patients after rehabilitation course (53,5% before rehabilitation and 33,6% non-dipper patients after rehabilitation, $P < 0,05$).

On the base of researches and literatures datas we discuss, that TPF are capable to change pharmacokinetics and pharmacodynamics of medicines; the electrotherapy promotes lengthening of the period of removing medicines from tissues and organs and prolongs action of medicines; many TPF can change the sensitivity of tissues and organs to medicines; TPF depending on a doze, time and the techniques of influence can strengthen or reduce therapeutic efficacy of medicines, reduce negative actions and toxic effects of medicines. On the other hand, some medicines can reduce of inadequate balneo- or physioreactions. And at last, the complex application of TPF and medicines promotes influence simultaneously on many pathogenetic parts of pathological process, that in a result is accompanied by lengthening of the period remission.

Despite of the positive clinical data on experiency of complex application of TPF and medicines, there are many important problems in conditions of general practice:

- The optimum combinations of various groups medicines and TPF at the patients with various cardiovascular pathology are not determined;
- With occurrence new physiotherapeutic equipment is not only careful experimental and clinical substantiation of the indications for its application at a various pathology, but also development of optimum techniques of complex application with medicines in general practice.

The development of research of optimum technologies of application TPF and medicines can essentially increase efficiency of treatment and rehabilitation of the patients with cardiovascular pathology in general practice.

V.I. Zoloedov
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I.M. Zharkova

THE EFFICIENCY OF DIET THERAPY OF TYPE 2 DIABETES DUE TO COLD EXTRACTED SUNFLOWER OIL

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Diabetes mellitus (DM) still remains one of the most serious medical-social problems of the world health care. The therapy of diabetes in spite of a certain success faces new challenges. Nowadays there are actual attempts to modify the diet therapy of type 2 diabetes.

The objective of the present work is an investigation and evaluation of the clinical efficiency of diet therapy of type 2 DM with introduction into the diet of sunflower oil manufactured with the method of cold pressing. To achieve the objective changes of the clinical picture in the patients with type 2 diabetes were studied. The impact of sunflower oil on carbohydrate and lipid exchanges and the data of the homeostasis, dynamics of immunogram data was also estimated. Administration of the sunflower oil was carried out on the background of the regular diabetes therapy: (diet Nr 9 of the Institute for Nutrition RAMN) and the therapy with peroral sugar-reducing medications (diabethon MR, Maninil, Siofor).

37 diabetes patients aged 40-70 years suffering from type 2 diabetes with a 2-8 year record of the disease took part in the survey. The main group comprised 11 patients; the control group represented 26 people. The in-patients of the main group received additionally to the conventional therapy cold pressed sunflower oil in the amount of 10 ml (a dessert spoon) daily, during 10 days, before food intake starting after 2-4 days of their hospital stay. In the patients of the both groups general clinical data and the levels of carbohydrate and lipid exchange, homeostasis and immunogram before and after the treatment were examined. Clinical examination consisted of a conversation, examination, physical check, monitoring of the condition dynamics during the treatment, clinical analysis of blood and urin. Biochemical analyses were aimed at determination of glycemic status, total cholesterol, LDLC, HDL-C, triglyceride level, the atherogenic index, fibrinogen, prothrombin time, the prothrombin index and glycated haemoglobin. Regarding immunological data with the help of monoclonal antibodies T-cells, T-helpers, T-suppressors and B-lymphocytes were defined as well as immunoglobulin of the classes A, M, G and main properties of fagocytosis.

As the results of the investigation it was stated that in the patients with the type 2 diabetes manifested disorders were revealed not only in the carbohydrate exchange but also in the lipid exchange. Practically in all the patients an increase of cholesterol level on the background of decreased HDL-C and accelerating of LDLC with the growth

of the blood serum atherogenic index were registered. The patients of the both groups showed significant changes in blood coagulability displayed through hypercoagulation. The properties of the immune status were characterized with a noticeable imbalance between different chains of the immune system. Among the patients dominated the disturbances of the humoral resistance and fagocytosis on the background of a moderate secondary immune deficiency of the T-chain immunity. There was no case of sunflower oil intolerance during the whole period of the study as well as dyspepsia, allergic reactions and other side-effects. Besides, it facilitated a moderate normalization of the lipid and to some extent the carbohydrate exchange.

Therefore, cold pressed sunflower oil can be recommended for diet therapy in type 2 diabetes.

I.M. Pushnikova

**REGENERATION POTENTIAL OF PSYCHOSURGERY
(MATERIALIZATION OR DEMATERIALIZATION OF THE CELL
STRUCTURES)**

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Surgical intervention is an opportunity for a patient to return to his normal life or at least to improve his condition. This refers both to conventional and complementary medicine. The method is based on a very accurate diagnosis including diagnosis of the coronary system, the construction of DNA; search for microbes and viruses. There is no need in tools and equipment. Thanks to God's gift we can reach everything: from the microworld to the macroworld.

We enter blood through central liver vein where all body's waste is accumulated and if the body contains any microbes or viruses 95 percent of them will be found around the liver. We clean the body from pathological microorganisms and inflammations and reduce or remove pathological processes.

But to achieve a significant or complete recovery a surgery is often necessary. Very often as the result of surgeries nerves are damaged or cut over, the order of the adjacent organs is affected; it can lead to bleeding and gangrene.

Therefore, our bloodless energetic interference can provide better results compared to the conventional medicine.

Since his birth man is exposed to internal and external stress irritators, on which the brain responds with setting blocks. These blocks are correlated with definite parts in the body.

For example, if such a block appears in the place, which is correlated with the liver, the liver is affected and it will not recover until the brain block responsible for liver disorders is removed. Only after that a medical or surgical treatment can be carried out.

We refer the above mentioned technique to a method of complementary medicine. We bring a patient to a condition close to subconsciousness, which enables us to release the brain from all the blocks that induce pathological changes in man both on physical and spiritual levels.

How to bring the patient in this condition? This is achieved due to pneumosynthesis or holotropic breath. Holotropic breath is a deep and relatively frequent breathing, which enables man not to feel his body and environment; all the cells are relaxed including the brain cells. In this state the blocks are opened and removed. During it the patient can feel cold or hot, his hands and feet might feel stiff, there are might be pains. In some patients we observe uncontrolled body movements; sometimes they might weep, laugh or cry. Sometimes the patients seem to be set free from invisible chains.

This is not a manifestation of the illness but its memory, which was recorded in such part of the brain which we figuratively call a block.

And additionally to health improvement our sessions remove the blocks responsible for bad memory, bad habits and depressions, deactivated or forgotten abilities, assisting in establishing one's ego.

The potential of bioenergy is enormous. The time has arrived to unite discoveries in the field of biophysics, biochemistry, bioenergetics and other sciences into a single integral image of mutual of man and the universe.

S.A. Mezentsev

NEW APPROACHES TO SOCIAL HEALTH MANAGEMENT

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Today in a number of European countries including Russia we may observe a low birth rate and negative demographic prognoses. These phenomena are observed mainly among the natives of these countries. On the other hand migration flows from the countries with high birth rate and feeble economies are growing gradually.

As a result of these processes the genofond of different nations is gradually renewed and new aspects of geopolitics are forming, not so visible by the external manifestations but important from the point of view of its consequences. We can do nothing with it yet for these countries do lack labour force and they have to invite, to employ guest workers and to create living and working facilities for them but all the rest doesn't play into the hand of the natives and the following generations. Fundamentally new and very difficult problems appear and – that is more important – more or less considerable strategic risks of disappearance of several nations in the 21 century come up.

In view of that we inform you that the Chamber of Commerce and Industry of the Russian Federation and Russian State Social University dispose of exclusive rights on the use of collective intellectual property – a new doctrine of social development and a packet of

technologies the use of which aimed at the native population of a country will allow:

- to incorporate national programs on improvement of quality of life and state of health of different profiles into one long-term special-purpose program and thus to make all the social development targeted, task-oriented, active and controllable;

- to get the native population out of an unfavourable economic and demographic conditions for the near 20-25 years by doubling the active life period and the quantity of those capable to work and of reproductive age;

- to embrace a number of social, juridical, ecological and economic problems and issues that have not yet been included in the sphere of social politics, but are of great importance for the survival of the native population, the prestige and the development, while forming a unique program;

- to accelerate noticeably the resolving of social problems, to increase the efficiency of the application of finances allocated and the targeting of their usage;

- to actualize to the full extent the local authorities potential through involving a considerable part of the native population;

- to take advantage of the intellectuals and young generation, first of all students and social high school graduates in the process of elaboration and implementation of a long-term program of social and economic development;

The pattern of the National standard of quality of life and health status and brief characteristics of methods of its implementation are presented in the report. Among them – a fundamentally new concept of a highly-efficient system of protection and maintenance of health of the native population represented as a Holding and a service of insurance of health quality and lifetime of the members of Tribal families that make up native population. The Tribal family is viewed as a cellular of a nation and the main subject of its socio-economic and biological welfare.

S.D. Dorochov

REGENERATIVE CRYOTHERAPY® FOR SNORING, TONSILLITIS, PHARYNGITIS, RHINITIS AND OTHER DISEASES

KRYOPraxis Dorochov, Viersen, Germany; www.kryopraxis.de

Classification: Cryotherapy can be classified on the basis of its clinical effect and as a function of the temperature parameters which affect the impact of the cold factor on tissue.

Cryotherapy: 1. Regenerative, 2. Destructive, 3. Cryosurgery (exstirpative cryotherapy)
REGENERATIVE CRYOTHERAPY® consists of the brief administration of dosed cold treatment to tissues and organs at temperatures close to the cold-resistance threshold of the tissue. The aim of this type of cryotherapy is to bring about regeneration and functional reactivation at the treatment site. Regenerative cryotherapy causes a reaction in the organism

which is linked to local tissue irritation and manifests itself in an elimination of the pathogenic factors, regeneration of tissue, and restoration of functional competence. Monitoring of the cooling parameters in the tissues is a very important point during regenerative cryotherapy since the therapeutic effect is directly linked to these parameters.

Treatment of diseases / complaints in my practice (www.kryopraxis.de) with Regenerative Cryotherapy:

- Snoring and Sleep Apnoea
- Chronic Tonsillitis and chronic pharyngitis
- Chronic Rhinitis of Vasomotor and Atrophic Origin

REGENERATIVE CRYOTHERAPY® is an effective treatment method via which a stable therapeutic effect can be achieved.

Regenerative cryotherapy can be employed to:

1. stop snoring and sleep apnoea
2. restore nasal breathing
3. reinstate the protective function of the lymphoid tissue in the tonsils and Waldeyer's throat ring
4. stimulate immune processes
5. eradicate chronic foci of infection in the tonsils, pharynx and nose, thereby preventing complications or sequelae of these infections. These include systemic and rheumatoid diseases of the heart (i.e. endo-, myo- and pericarditis), the blood vessels (e.g. vasculitis), the joints (e.g. polyarthritis), the kidneys (e.g. glomerulonephritis), the internal and external sex organs (e.g. disturbances of potency), the nervous system (e.g. chorea) and the skin (e.g. scleroderma, psoriasis, pustulosis and lupus erythematosus), infectious allergic diseases (e.g. bronchial asthma, atopic and allergic dermatitis, etc.) and immunodeficiency disorders.

If everyone (but especially children) would undergo prophylactic treatment of the lymphoid tissue of the tonsils, pharynx and nasal mucosa using the method of regenerative cryotherapy, we would observe the following positive effects (especially in children):

- improvement of the protective functions of the organism
- stimulation of the immune system.

We can assume, moreover, that the general risk of contracting systemic, rheumatoid, infectious allergic and oncological diseases, immune deficiency states, snoring and sleep apnoea syndrome - would be distinctly reduced.

Monitoring of the cooling parameters is an important point to be observed during regenerative cryotherapy since achievement of the desired therapeutic effect depends directly on these parameters. On the basis of my extensive experience with cryotherapy, I have designed and patented (German Patent Office in Munich 1993) a mobile cryotherapy unit suitable for use in medical practices. With the aid of this unit, it is possible to keep tissue cooling under control, especially in the ears, nose and throat regions.

REGENERATIVE CRYOTHERAPY® (German Patent Office in Munich.2003)

With its regenerative effects, cryotherapy opens up vistas for an alternative direction in medicine, namely regenerative medicine.