

**Volume: 2013**

**Number:**

**2**



# **ACUPUNCTURE and NATURAL MEDICINE**



**MEDICAL SOCIETY OF  
NATURAL MEDICINE**

**ISSN 1339-4703**



# Acupuncture and Natural Medicine

## Editorial

**D**ear colleagues, friends of natural medicine and acupuncture. I warmly welcome you in reading the second issue of our e-magazine, where you will again encounter interesting knowledge from the world of acupuncture and natural medicine. We enjoy the diverse palette of autumn colors and I believe our magazine adds to this contentment as well. XVII. Medical Congress of Natural Medicine and Acupuncture with interdisciplinary participation has recently ended. It was held on 18.-20. October 2013 in Trnava, a picturesque town known as the Slovak Rome. Festive moment at the opening of the Congress was also exceptional in that we welcomed Dr. Pil-Gun Kim, K.M.D., PhD, the president of Korean Medicine Association (AKOM) and Jeong Yeonil MD, the director of international affairs of AKOM in Slovakia for the first time. After speeches of MUDr. Gustáv Solár, PhD, the president of the Congress and LSNM, Dr. Pil-Gun Kim, K.M.D., PhD, the president of AKOM, MUDr. Ladislav Pástor MSc, the president of Private doctors association in SR and MUDr. Ladislav Fildán, the president of Czech medical society for acupuncture ČLS JEP a historical „Agreement of cooperation between Medical society of natural medicine and Korean Medicine Association“ was solemnly signed by the president of LSNM and the president of AKOM. This Agreement covers the whole spectrum beginning with acupuncture and other fields of natural medicine up to interdisciplinary cooperation on every level and it paves the way for joint publications, research and education activities. Festive atmosphere of the opening ceremony was also affected by the letter from MUDr. Eugénia Bellová, the wife of Extraordinary and Plenipotentiary Ambassador of the Slovak Republic in Korea. We will publish the letter on the website of our society eventually. The entire Congress was traditionally on a high professional and organizational level conducted by MUDr. Juraj Gajdoš, the General Secretary of the Congress. All presented lectures will be gradually published in our magazine. Congress included a two- day satellite theme course on Korean medicine in Šamorín conducted by our Korean guests. Its participants had an opportunity to become acquainted with Korean acupuncture which is very rewarding for us.

In this issue we continue with the second part of the educational series Acupuncture a little differently (MUDr. G. Solár PhD) by analyzing relationships between acupuncture and natural medicine. Jeong Yeonil MD introduces the history of Korean medicine and principles of Sa-Am acupuncture. MUDr. T. Mochnáč addresses the issues of open systems in relation to the micro-systems in acupuncture. MUDr. J. Hruška closes the medical part with his original views in the section “An Insight into the Acupuncture Thinking”. In “Interdisciplinary Insights” Doc. Ing. J. Brindza and col. evaluate the effect of activation of pumpkin juice by vital turbine and its physical parameters. Doc. RNDr. M. Khun, Csc. deals with the influence of chemical composition of environment in the view of the more recent focus of geochemistry - medical geochemistry.

In the next issues of our magazine we would like to introduce a section of professional discussion in that we would welcome serious international professional discussion on published articles.

As I mentioned already in the first issue of our magazine, its scientific board will gradually expand to guarantee the scientific level of the magazine across the publication spectrum. Therefore it is a great honor for us to welcome Dr. Pil-Gun Kim, K.M.D., PhD, the president of AKOM, Jeong Yeonil MD from Korean

republic and Slovak internationally acknowledged medical authorities as Prof. MUDr. Marián Mokáň, DrSc. FRCP Edin, Prof. MUDr. Štefan Galbavý, DrSc. and Prof. MUDr. Miron Šramka, DrSc in the scientific board of the magazine.

I wish you a lot of health, content moments and inspiration.

With regard and love,

Soňa Sázelová, M.D.  
Managing Editor



### EDITORIAL OFFICE

#### MANAGING EDITOR

Soňa Sázelová, M.D.

#### EDITORIAL BOARD

Soňa Sázelová, M.D.

Eva Baumann, M.D.

Martina Lehocká, M.D.

Solijon Mamarasulov, M.D.

Magdaléna Miklósová, M.D.

Katarína Loncková, M.D.

#### TECHNICAL EDITOR AND GRAPHIC DESIGN

Mgr. Stanislav Gajdoš, MBA

### CONTACTS

*E-mail:*

office@naturalnamedicina.com

*URL:*

www.naturalnamedicina.com

*Address:*

Ivanská cesta č. 23  
82104 Bratislava



## SCIENTIFIC COUNCIL

Prof. RNDr. František Baliak, PhD.  
*STU Bratislava, Civil Engineering,  
Department of Geotechnics*

Ing. Eva Kutejová, CSc.  
*Dpt. of Biochemistry and Structural Biology,  
Institute of Molecular Biology, SAV, Bratislava*

RNDr. Katarína Bíliková, PhD.  
*Dpt. of Molecular Apidology,  
detached branch of Institute of Forest Ecology, Bratislava*

prim. Anna Loskotová, M.D.  
*chief of clinic of physiotherapy - SALVE Centre,  
Vysoké Myto, CZ  
MASARYK University in Brno,  
Clinic of Burns and Reconstructive Surgery,  
University hospital in Bohunice, CZ*

Doc. Ing. Ján Brindza, Csc.  
*Slovak University of Agriculture  
Institute of Biodiversity Conservation and Biosecurity*

Teodor Mochňáč, M.D., PhD.  
*Akupunktum,  
Center of acupuncture and diabetic foot, Nitra*

Juraj Gajdoš, M.D.  
*General Practitioners for Adults and Acupuncturist,  
N.z.z. Trnava*

Prof. Marián Mokáň, MD, DSc., FRCP Edin  
*Department of Internal Medicine I.,  
Jessenius Faculty of Medicine  
Comenius University and University Hospital Martin*

Doc. RNDr. Vojtech Gajdoš, Csc.  
*Geophysicist, Bratislava*

Doc. Jana Slobodníková, M.D., CSc. h.Prof.  
*Faculty of Health, KLVM  
Alexander Dubcek University of Trencin*

prof. Štefan Galbavý, MD, DrSc.  
*Institute of Laboratory methods,  
St.Elisabeth University of Health and Social sciences,  
The St.Elisabeth Cancer Institute Bratislava*

prim. Gustáv Solár, M.D., PhD.  
*Center of Acupuncture, Bratislava*

Doc. RNDr. Miloslav Khun, CSc.  
*UK Bratislava, Faculty of Natural Sciences,  
Department of Geochemistry*

PaedDr. Zlatica Solárová, PhD.  
*Center of Acupuncture, Bratislava*

Dr. Pil-Gun Kim, K.M.D. PhD.  
*Korean Medicine Association, Seoul  
president*

Prof. Miron Šramka, MD, DrSc.  
*St.Elisabeth Cancer Institute, Bratislava  
Department of stereotactic radiosurgery.  
St.Elisabeth University of Health and Social Sciences,  
Bratislava*

Prof. Ing. Ján Košturiak, PhD.  
*Managing Director, IPA Slovakia,  
Professor Tomas Bata University Zlin*

Jeong Yeonil, M.D.  
*Korean Medicine Association, Seoul  
Director for Foreign Affairs*



## Table of Contents

### Acupuncture Little Different

|  |   |
|--|---|
| Acupuncture and Natural Medicine ..... | 5 |
| Gustáv Solár, M.D., PhD.               |   |

### Clinic

|   |    |
|---|----|
| Korean Medicine .....                       | 14 |
| Yeonil Jeong, M.D.                          |    |
| Acupuncture and system's interactions ..... | 27 |
| Teodor Mochnáč, M.D., PhD.                  |    |

### An Insight into the Acupuncture Thinking

|  |    |
|--|----|
| You can do nothing but experience it ..... | 34 |
| Ján Hruška, M.D.                           |    |

### Interdisciplinary Insights

|  |    |
|--|----|
| Effect of activating natural juice from the pulp of the fruit giant pumpkin ( <i>Cucurbita maxima</i> L.) with turbine vital to certain physical characteristics ..... | 37 |
| Doc. Ing. Ján Brindza, CSc.  |    |
| Ing. Hana Oleárová   |    |
| Ing. František Pancurák  |    |
| Dr. Michail V. Kurik   |    |
| Geochemical Environment And Human Health .....   | 47 |
| Doc. RNDr. Miloslav Khun, Csc.   |    |
| Instructions for Authors .....   | 52 |



## Acupuncture and Natural Medicine

Gustáv Solár, M.D., PhD.

### Summary

In the second part of the series „Acupuncture a little differently“, the author

addresses the interrelationship of acupuncture and natural medicine. He analyzes the broader context of acupuncture, natural medicine and Being as such. He points out the archetypal nature of a man. Phenomena that are generally a subject of medicine and especially that of acupuncture and natural medicine are always systematic, complex and multidimensional. This applies equally for both physiological and pathological phenomena. While different medical departments reduce description to biochemical/morphological or psycho-regulative levels, acupuncture and the whole range of natural medicine also evaluate at the energy-informative level; and depending on the level of maturity and ability of the evaluator, at least partially at the spiritual level as well. The task for natural medicine is primarily to describe the complex phenomenon at all levels, to search for its energy-informative nature, to create graphical and mathematical models where possible that can then be used for expertise and experimental work.

Energoinformative nature itself has multiple layers hence only the latest diagnostic procedures in acupuncture and natural medicine

provide basis for creating models of single isolated phenomena and processes. We are still far away from comprehensive diagnostic models; however at the beginning of this era, some possibilities of spatial modeling of certain relations subject to the study of acupuncture are already starting to show. It is necessary to say that the pentagram for example, is in its way a kind of broad and simplified model, yet spatial models allow substantially different possibilities which means a significant qualitative step forward.

The general mission of natural medicine is to provide basic services to all expertise methods and processes of natural medicine that are based on acupuncture. Acupuncture as a key branch of natural medicine is preventive, diagnostic, and therapeutic and research application of knowledge of Tradition and modern science in its active points, meridian and Microsystems in prevention and treatment of disorders and diseases. The Tradition, which even Chinese Traditional Medicine obviously alongside acupuncture draws from, is very broad and can be found in all the relevant cultures, where it mutually intertwines. In terms of contemporary science, little is known about it and requires correct medical and interdisciplinary research.

**Keywords:** acupuncture, natural medicine, energy-informative processes, symbol, model, tradition





If we understand natural medicine as institutionalized circle of medical disciplines, methods and procedures, then acupuncture serves as an essential medical discipline. This statement can raise numerous questions and controversial reactions and in reality it does. These can be philosophical, factual, medical and other on either side of all „barriers“. Adherents and opponents of natural medicine and acupuncture discover here the proof that both are about the same thing. Thus opponents can find a common denominator for rejecting both and adherents can arrive at a conclusion that natural medicine is actually just a broader applied acupuncture. The hard-core of acupuncture guards will object and claim that acupuncture is a part of CTM and hence cannot be part of natural medicine, while CTM itself along other traditional medicines in their broader context include many natural-medical stigmas by their complexity. Some point out that the establishment of natural medicine as a medical department is just an unnecessary superposition of acupuncture and as a result feel threatened in their alleged exclusivity. We could go on like that for quite some time, however that is not our goal and it would not be reasonable or effective. It only serves to illustrate the kinds of discussion that may arise in clarifying this issue.

Another circle of conflicts may arise when answering the question: What came first, Acupuncture or natural medicine? This question seems legitimate at first as it is the basis of the answer to a question, whether acupuncture is a part of natural medicine or vice versa. At a second glance however, it is more than clear that

such question has no sense similar to the question of who came first, the egg or the hen. It must be clear that this does not represent the terminological definition (neither natural medicine, nor acupuncture were initially called that way), but it represents the substantive component of both terms which is clearly delineated.

The answers to these questions are essential for both; natural medicine as well as acupuncture. It is particularly relevant to research, clinic and prevention. Let's, however, have a more complex look at the matter. We all live in a specific environment that determines us. It's not only the social or natural environment that we perceive immediately. It is also the physical environment in its broadest sense of the word, chemical and at the highest levels even cosmic environments etc. that influence us all the time. Aside from this, we live in the middle of our thoughts, dreams, desires, wishes, joy and sadness and many other emotions where even this self created environment determines us. This determination is a lot higher than we are willing to admit to ourselves. For example; the experienced acupuncturists know that an active point can also be affected mentally. We are surrounded and determined by a lot of information and often times very subtle energetic influences of different specificity, intensity and importance to us. The organism must be prepared for this kind of communication. In this sense the system of active points, meridians and Microsystems all belong in the equipment of an organism. Despite numerous theories and findings a lot of questions remain opened both in



such internal systems and in systems and influence affecting the organism from the outside. Among these one can find Morfic fields (Sheldreake) at more sophisticated levels for example or seemingly ordinary meteosenitives, sub consciousness alongside other biochemical, physical, energy-informative and psycho regulative factors. These are phenomena that affect us directly and many of them are already well known in medicine.

In addition, there is also something else that has fundamental importance for us and its nature can be expressed as follows: The so-called Big bang triggered extremely precise and fascinating "cord" of events that led to the creation , development and preservation of life in the cosmos . There is no space here to develop these broader questions. However it needs to be stated that these processes must have been "pre-programmed" prior to the big bang (where essential attributes of matter were created) and the Big Bang itself, has been developing according to this program. It may generally be stated that if there is a program, there must be a programmer. Hence if we are all part of this grandiose program, then everyone's life definitely has immense value and importance. Space for this so called "program" is spiritual and theological. Each person must inevitable have a contact for this "program", for this archetype even though many are not aware it. Spiritual influences are crucial - especially the ones that are real and informal.

All these facts, in their complexity, constantly determine us and reversely we determine them. This is acknowledged and respected by all

relevant world cultures at their levels. However, there is mutual interrelatedness between all that is living and nonliving and the whole being as such. All the previously mentioned phenomena determine all and are determined by all. Therefore common patterns and their relations must apply in the macrocosm, but also in our microcosm. These are commonly object of our study and also affect our health, in the strict meaning of the word and to the extent that we understand this concept. Their consequences are also biochemical and morphological processes that can be understood better and are subject of study particularly in natural science, but also in technical science. Jean Guilton, philosopher and member of the French Academy says: " ...it seems that the universe is built and managed with unimaginable precision on the basis of several large constants . These are immutable, calculable standards, which can not be determined as to why nature has chosen them. We have to accept the idea that in all cases other than " the mathematical miracle " , around which our reality happens to be based, aspects of absolute chaos would have appeared in cosmos ... " All relevant cultures have these relevant facts and knowledge implicitly embedded in their symbolism, traditions and practice obviously depending on their achieved level of knowledge. As the honorary president of the French association of acupuncture Dr . Jean - Marc Kesp notes " ...man is an archetypal being..." and elsewhere continues; „... How is a doctor to treat a patient, when the doctor does not now that each being has to be primarily reintegrated into the world order, into the holy architecture of the



universe and of life, while not realizing that his instrument may only ally providence, which he most commonly overlooks?”

Turning back to natural medicine which studies all energy and informative contexts in relation to human health. Spiritual connections are subject of study in theology and pastoral medicine at the medical level, however natural medicine should recognize them and take them into account. If natural medicine as an institutionalized circle of medical disciplines, methods and procedures is to handle this, then it must inevitably act interdisciplinary in research in the broadest “beyond-medical” sense of the word. For this reason a company of LSM interdisciplinary studies exists within LSM. Its mission is to study energy-informative analogies, context and relationships between the living and nonliving systems relative to medicine. Therefore it also looks for and accepts all contexts within the competence of pastoral medicine and theology. If this energoinformative knowledge generates or already generated a medical field, then it clearly falls under natural medicine. Not in order to be engulfed by Natural medicine, but to provide a universal service, exceeding the department itself. It is clear that only the field of natural medicine that has its own specific theoretical base, diagnostics, therapy, prevention and research can be declared as a branch of medicine. Such characteristics are also shared by several national schools of medicine like. Ayurveda, TCM, traditional Korean medicine and many others that are based on universal principles. Because the essence of natural medicine is in these common and

energoinformative principles.

Phenomena that are subject of study in general medicine and acupuncture and especially in natural medicine are always systemic, complex and multidimensional. This applies for both physiological and pathological phenomena. While other branches of medicine are reducing the description to morphological-biochemical and at most psycho regulative level, acupuncture and a range of natural medicine evaluate the energoinformative level at least partially and spiritually, depending on the ability and maturity of the evaluator. The task for natural medicine is primarily to describe the complex phenomenon at all levels, to search for its energy-informative nature, to create graphical and mathematical models where possible that can then be used for expertise and experimental work. Energy-informative nature itself has multiple layers hence only the latest diagnostic procedures in acupuncture and natural medicine provide basis for creating models of single isolated phenomena and processes. We are still far away from comprehensive diagnostic models; however at the beginning of this era, some possibilities of spatial modeling of certain relations subject to the study of acupuncture are already starting to show. It is necessary to say that the pentagram for example, is in its way a kind of broad and simplified model, yet spatial models allow substantially different possibilities which means a significant qualitative step forward.

Natural medicine and of course even acupuncture also guarantee individual approach to the possibility of statistical research





completely differently than the so-called Evidence base medicine model (EBM), which is somewhat useless in natural medicine and in other areas of medicine considered challenging at least and for the individual patient rather irrelevant. There is no room for a broader discussion regarding this issue here; however we shall certainly come back to it in the future. Models, which are being discussed, have all the pros and cons of a model as such. It is necessary to bear this in mind while working with models. On the other hand, it should be noted that not only the Bohr model of the atom, but the pentagram, the Star of David, hexagram, the pyramid, cabalistic tree and others are models and symbolic expression of something that is often rather difficult for us to get a grasp on for the time being. These models implicitly include a spiritual, energy-informative, psycho-regulative and morphological/biochemical levels. All relevant ancient cultures worked with models and symbols. After a thorough study we arrive at an essential finding that the etiology of these models and symbols is the same and originates from one source regardless of the fact that their discovery took place in various periods of times. They should obviously be understood as authentic and undistorted models and symbols.

How does this relate to acupuncture? There is a generally accepted widespread thought in the Western cultures that acupuncture is part of Chinese traditional medicine and in some places the sole education of CTM is considered sufficient for the exercise of acupuncture. For example, the education of CTM *de jure* is correctly considered insufficient for the practice

of acupuncture in Slovakia. On the other hand the acupuncture department is a part of the Institute of CTM, or perceptively the Institute of “traditional medicine”. Acupuncture in Slovakia is currently accepted as a subspecialty of medicine and has its own specialization. Acupuncture by law may be practiced by doctors only. Poor, insufficient and irrespective legislation, however, causes acupuncture (or at least what some consider as acupuncture) to be practiced illegally by laymen or even CTM graduates. The legislation has it however, that the department of acupuncture even includes cupping, which has very little to do with acupuncture itself. It is therefore quite natural that LSNM among other things points to the necessity for legislative changes.

We shall now attempt to have a look at acupuncture in a somewhat different manner. It is an undisputable historical fact that acupuncture has always been part of Chinese traditional medicine. Needless to say, that not only of the Chinese, but also Tibetan, Korean, Vietnamese and other traditional schools of medicine. The principles out of which acupuncture is derived from are not only recognized and accepted by the ancient Chinese but also by the Hebrews, the Mayans, the Egyptians and other comparatively old and perhaps even older cultures. It is therefore a multi-cultural knowledge, transformed into Chinese symbolism, where points and meridians are influenced from the outside using needles and heat (moxa). In a way, that is how *czen-czju* is formed in Chinese traditional medicine. Today, it is better known throughout the world by its Latin term;



acupuncture. It is obvious that this development took place on the background of a very broad knowledge of many laws that did not only come from Chinese origins despite the richness of their traditional and symbolic speech. Nonetheless, TCM as well as other traditional medicines attribute all these findings exclusively to the "Chinese masters." It seems rather humorous that various contemporary orthodox interpretations of new findings state that the ancient Chinese had already known all this; however they just did not want to publish it. Among these belongs a claim, that the ancient Chinese introduced the five elements as the number 5 is popular in that culture. Take for example the diagrams attributed to Si - Fu and Wen (there is an interval of some 600 years between the two) which symbolically include a number of multi-level and multidimensional rules and deep knowledge that are significantly older than these diagrams. They are still considered as an exclusive arrangement of things in the diagrams of this type from the perspective of TCM. Their interpretation is axiomatic. Today, we know and we shall discuss this in more detail in other sequels, that between these systems (Si - Fu and Wen ) exist mathematical laws and based on the calculations and reality these two systems inevitably include two more, which we have called S1 and S2 for the time being. It is therefore certain that these links were not and are not known in TCM, as the quite significantly modify many existing traditional descriptions and interpretations of various phenomena. Nevertheless, two of these four systems are found in TCM and have a very long tradition. It is

therefore a fragment of a very complex system exceeding not only the framework of TCM. Many other findings and rules are known, for example, from the Hebrew tradition which is at least as old as the Chinese tradition. This matter is very well covered by A. de Souzaenelle . Many very fundamental links and findings are brought by pyramid models, which shall also be discussed in the other sequels. It can therefore be concluded that the tradition - which TCM as well as acupuncture draw from- is very broad and can be found in all relevant cultures, where it mutually intertwines. Therefore LSNM understands acupuncture significantly broader than just part of TCM. Without demythologization of TCM - with all due respect to its enormous contribution - and recognizing other parts of the traditions, it is not possible in to conduct research or even further development in acupuncture. The development of unorthodox special diagnostics (e.g., TST, electro acupuncture and others within LSNM Slovakia) is based on a much broader basis and such diagnostics is fully compatible with other medical diagnostic procedures. This issue will also be addressed in the other sequels of this cycle.

As well as exploring the traditions as a whole the development of modern comprehensive diagnostics in acupuncture would not be conceivable without a broad interdisciplinary study. If we respect the acupuncture system of the body, we can not assign to Western diagnostic units any acupuncture treatment. In other words without serious acupuncture diagnostics an acupuncture treatment cannot be assigned. That is why diagnostics is so important. However it also



refutes many myths. For example, the so-called distant and nearby points, points of local and overall importance that are rather vague, very subjective and extremely schematically conceived diagnostic conclusions based only on TCM and many others including myths related to 'Western' understanding of research in acupuncture, which shall also be covered.

As acupuncture focuses on examining relationships and connections in the active points, meridians and Microsystems of the organism and subsequent applications in experiments, diagnostics, therapy and prevention, it is the *lege artis* department of medicine, which applies medical findings in the traditions along with the latest medical interrelated findings. It requires not only knowledge of acupuncture, but also in other medical contexts, and should be in the hands of a doctor. If this knowledge is applied on animals, it is *lege artis* veterinary acupuncture falling into the hands of veterinarians. If his diapason findings are made available to other medical disciplines in order to apply this knowledge in their field (e.g. learning some interdependencies) – it then becomes part of comprehensive medical care. This part of its findings can be applied by doctors from various departments in their respective fields. For example physiotherapists, psychologists and others. Not because of perform acupuncture itself, but to have a broader overview of the context of the patient's condition at all levels. Necessity of having at least a basal knowledge of each doctor from each department of medicine is commonplace in medicine. Just as surgery,

internal medicine or even theoretical disciplines have a common base; the medical disciplines that are based on energoinformative principles have a common base too. All these together constitute a base set of medical science - namely medicine. The medicine, which provides - or at least should provide - preventive, diagnostic and therapeutic care for humans as complex beings. This also means including energoinformative and spiritual levels. Therefore natural medicine or acupuncture is not and can not be an alternative medicine, or so to speak an alternative to medicine. The real problem is the fact that many of the real, or at least formal medical authorities simply do not have the necessary knowledge of natural medicine. It is usually not a subject of graduate medical study. Even the legislation in several states, which allows even non-physicians to perform acupuncture, is based on a principal misunderstanding of its nature. Some humorous legislative provisions can be added to this. For example the "Contraindications of acupuncture." It is the same nonsense as contraindicating surgery, internal medicine, or ophthalmology. Of course, there are conditions that contraindicate certain diagnostic and therapeutic procedures, but not the medical discipline as such. A nice example is a statement, which says that "acupuncture is contraindicated in skin diseases." The question is why. Is there a possible loss of points or meridians during skin diseases? Is it not possible for photo-puncture or other "non-invasive" procedures to be used? Is acupuncture not effective in treating severe burns? There are many such examples from



other areas as well. It is possible to pinpoint contraindication of acupuncture during pregnancy. Our practice and experience clearly confirms the absurdity of such "global " contraindications.

The tragedy of acupuncture is the fact that many acupuncturists confuse acupuncture with what we could call "technology of needle pricking." In other words, the application of needles according to certain recommended schemes. The teaching of TCM also contributes to this, as such schemes are recommended there. Furthermore the structures of almost all textbooks of acupuncture, which are not substantially different and contain the recommended sets of points, also contribute to the above mentioned. Thus we encounter various funny characteristics of acupuncture. We can, for example, read that they it is an ancient or even the oldest healing art consisting of pricking needles and that acupuncture treatment consists of a series of usually 5-10 sessions or that it is a sort of magic etc. There are unfortunately some who inject the patient dozens of needles thinking that they are practicing acupuncture. These arguments and practices not only incriminate their authors of small knowledge of acupuncture, but objectively harm acupuncture itself. Such naive misinformations are often presented to doctors as a kind of medically not substantiated quackery. For the general public there is a perception that anyone can actually learn it and that doctors usurp acupuncture only from a sense of their esprit superiority. All this is of course is the "dark side" of acupuncture. The real acupuncture requires a deep understanding of the theoretical basis and not only in the roots of

TCM , detailed examination in excess of classical recommendations of TCM , individual approach to each patient and evaluation of all medical , energoinformative , psychological , social, environmental and indeed spiritual contexts. Only after such systematic multi-level analysis and localization of primary organism failure a careful intervention to the organism may be conducted with the smallest number of points used. It is also necessary to monitor the feedback of such intervention.

Where are the boundaries of acupuncture as a branch of medicine and where is the imaginary limit of acupuncture and natural medicine? Very simply, one could answer these questions in the following manner: Acupuncture is a preventive, diagnostic, therapeutic and research application of findings in traditions and modern science in the active points, meridians and Microsystems in prevention and treatment of disorders and diseases. However, there are preventive and therapeutic procedures that apply this knowledge in other ways than acupuncture, but have the same base and are determined by the same energoinformative processes, forming the substrate material of these affairs. These fall in the range of natural medicine. In order to recognize these processes and contexts, an interdisciplinary open approach is necessary. When investigating the impact on human health in a broader physical, chemical, geological, economic or other contexts, is becomes a part of an interdisciplinary knowledge. And that, along with a substantial enrichment of modern medicine is the main contribution of natural medicine for everyone.



## Conclusion

What are the possible benefits of acupuncture for other branches of medicine? What is the vision for the future?

Acupuncture is primarily natural, ecological prevention and treatment, multi-level complex and exact diagnostics. In the longer run, however, it allows modeling of physiological and pathological processes, the formation of spatial and mathematical models applicable across the entire medical field and not only there. However it is the "music of the future". Perhaps not so distant, as it now appears. It depends on how quickly we get rid of the myths and prejudices and create the same conditions for this medical discipline as for other medical departments.

Gustáv Solár, M.D., PhD.

President of the Medical Society of Natural Medicine

Centrum akupunktúry

Ivánska cesta 23, 821 04 Bratislava

[www.akupunktura.sk](http://www.akupunktura.sk)

[www.naturalnamedicina.com](http://www.naturalnamedicina.com)

e-mail: [solar@akupunktura.sk](mailto:solar@akupunktura.sk)

## Bibliography

1. Dahlke, Ruediger. 2006. Etikoterapie srdce. Olomouc : Fontana, 2006. ISBN 80-7336-381-X.

2. De Souzenelle, Annick. 2010. Symbolizmus ľudského tela. Paris : Malvern, 2010. ISBN 978-80-86702-65-0.

3. Guiton, Jean , Bogdanov, Grichka a Bogdanov, Igor. 1992. Boh a veda. Bratislava :

Lúč, 1992. ISBN 80-7114-079-1.

4. Mochnáč, Teodor. 2011. Akupunktúra a systémové vzťahy. Congressus. Poprad : s.n., 2011. XXVI. Congressus Acupuncturae Slovaciae et Bohemiae cum participatione internacionali.

5. Mole, Peter. 1992. Akupunktura, harmonie těla, mysli a ducha. Praha : Pragma, 1992. ISBN 80-7205-195-3.

6. Sheldrake, Ruppert. 1990. Tao přírody. Bratislava : Gardenia Publishers, 1990. „ISBN 80-85662-10-8.

7. Solár, Gustáv. 2011. Pôvod a súčasnosť akupunktúry. Poprad : s.n., 2011. XXVI. Congressus Acupuncturae Slovaciae et Bohemiae cum participatione internacionali.

8. Solárová, Zlatica. 2009. MKB-S – dotazník ako jeden z indikátorov prevencie chýb. Chyby a omyly v mamodiagnostike. Trenčín : s.n., 2009. referát .





## Korean Medicine

Yeonil Jeong, M.D.

### Abstract

Korean Medicine has remarkably changed into 'modern' and 'comprehensive'

medicine with the variety of application of scientific technology to its diagnosis and treatment, so that Korean Medicine with thousands of years of wisdom will develop itself as a medicine enhancing the quality of life of the people throughout the world. Grafting scientific and expert method of diagnosis and treatment based on the philosophical ground of humanitarian and of a whole organism system, Korean Medicine is poised to play an essential role in the 21st century for public health and medicine.

Now Korean Medicine will pay a keen attention to treating incurable diseases, anti-aging and extending healthy human life so that all humanities can live a healthy and quality life, and we will challenge new tasks to make Korean Medicine known to the world by improving Korean Medicine's value and objectivity in terms of treatment.

We believe firmly that Lastly, we sincerely hope that saam acupuncture and korean herb medicine treatment can pursue the goal and endless challenges with full cooperation with Natural Medicine of Slovakia.



The origin of Korean Medicine goes back to ancient times.

**Keywords:** Sa-Am Acupuncture is an acupunctural art unique to Korea.

Probably therapeutic actions were being done when our ancestors settled in this land. This kind of action was like touching wounded area or vomiting the poisonous food. The result of these experiences is the belief that every illness is caused by intrusion of outer factors. Thereby extrusion of the pathogen was believed as the treatment of the illness. Back then people had simple naturism. Naturism gradually became animism and this animism with the concept of outer factors brought forth the idea of evil spirit. That is, people believed it is evil spirit that brings disease to people and driving out evil spirit is the way to cure diseases. Commensurate with this Shamanism driving out evil spirits in incantatory ways became the mainstream of ancient therapeutic actions. In 『Samguk-yusa·Kojos n(三國遺事·古朝鮮)』, where the birthmyth of



Kojos n(古朝鮮) is recorded, there is a story of a tiger and a bear who wanted to reincarnate in human form took wormwood and garlic. In 『Chewang-un-gi(帝王韻紀)』, which is written in around time with 『Samguk-yusa(三國遺事)』, wormwood and garlic are described as 'eatable medicine(飲藥)' and this tells us that even in times when incantatory medicine was the mainstream, medicinal herbs were applied. Moreover the fact that wormwood and garlic are not found in Chinese herb classic 『Shinnongbonch'ogy ng(神農本草經)』 shows Korean Medicine had its own originality. Commensurate with the adoption of foreign cultures, Korean Medicine went through changes. In the period of the Three States(三國時代), Chinese Medicine and Indian Medicine were adopted thereby setting up the foundation of original Korean Medicine. In the period of the Unified Shilla(統一新羅時代), medicine from Tang(唐)-China and India were added to traditional medicine. In the period of Kory (高麗時代), traditional medicine from Shilla(新羅) and especially Indian Medicine affected by Buddhism were adopted. By merchants of Arabia and Song(宋; newly founded nation in China around that time) various herbs from Western and Southern tropics were introduced and new medical knowledge was also adopted. By the time Won(元) was established, Kory (高麗) Medicine of could develop its originality because there was not enough interchange of medicine between the two countries. Therefore more investigations of domestic herbs were required and the result was publication of

numerous books on domestic herbs. Kory (高麗) Medicine seems very dependent on Song(宋) and Won(元) Medicine. But it is not true. The theories were based on medicine of Song(宋) and Won(元) but prescriptions were based on medicine of Unified Shilla(統一新羅). 『Chejung-ip'yobang(濟衆立效方)』, 『eich'waryobang(御醫撮要方)』, 『Hyang-yakkug ppang(鄉藥救急方)』 are the books that can evidence this fact. Medicine was in full flourish in the period of Chos n(朝鮮) and its fruit was 『Hyang-yakchips ngbang(鄉藥集成方)』 . Chinese medicine, however, was also accepted in many ways. Chinese medicine, established in Han(漢) dynasty, was first accepted by Shilla(新羅) and was accepted again by Kory (高麗). In late Kory (高麗), medicine of K m(金) and Won(元) dynasty was accepted but it wasn't that influential, rather it affected medicine of Chos n(朝鮮) dynasty. By the time of King Sejong, a book named 『ibang-yuch'wi(醫方類聚)』 was published and it was the integration of every books on Chinese medicine. After this, many books on specialties were published. After Japanese invasion of Kore in 1592(壬辰倭亂) 『Tong- bogam(東醫寶鑑)』 was written by Ho Chun(許浚) and it was the integration of Korean medicine. By that time Korea medicine was based on Chinese medicine in theory, and on Korean(Chosen) herbal drugs (鄉藥; herbs produced in Korea) in practice. But 『Tong-bogam(東醫寶鑑)』 unified these. Ho Chun(許浚) gathered all the previous theories before him and made his own. It was the unification of Chinese Medicine and Korean(Chosen)



Medicine. Therefore it has spread widely to China, Japan and Korea and is still effective. In late Chosen(朝鮮) dynasty, positivism was widespread. Thereby, actual proofs and experiences were taken highly. Doctors who had turned away from politics devoted themselves to treating diseases and as consequence new school tradition was established. Simple books on medicine for the common people were made. During those days Four Constitutional Medicine(四象醫學) by Ea che-ma(李濟馬) was established. He typified human and matched treatments. After this, Korean medicine went through much difficulties when Western medicine was introduced and Japan ruled Korea. However Korean Medicine kept its progress until now and has been studied by acupuncturist and herbologists around the world.

### Many publications

#### 1. 『Paekcheshinjippang(百濟新集方)』

This book is not extant. However quotations from 『ishimbang(醫心方)』 by Tanp'agangnoe(丹波康賴) and 『iryakch'o(醫略抄)』 by Tanp'aach'ung(丹波雅忠) give us clue to the chapter of this. If this kind of book was published in Peakche(百濟), Peakche(百濟) must have developed its original medicine.

#### 2. 『Shillabopsabang(新羅法師方)』

Directions and prescriptions of this book are quoted in the 2nd part 「Yong-yakshin i(服藥用意)」 and the 10th part 「Ch'ij kshinbang(治積聚方)」 chapter of 『ishimbang(醫心方)』 written in Japan. Also in the 28th chapter this book is

named Shillab psabang(新羅法師流觀秘密要術方) or Shillab psabimilbang(新羅法師秘密方). It is uncertain whether these three books are identical but supposedly, it is one book. Some of quoted directions are religious. For instance, the praying to Posal(菩薩) when taking medicine, or taking burnt Nobongbang(露蜂房) for strength. However, this tells us Buddhism was highly influential in Shilla(新羅). On the other hand using Soksuja(續隨子) for treating abdominal mass(積聚) is considered very rational when we still use this for menstruation disorder, Ka( ), Py k(癖).



#### 3. 『Ouch'waryobang(御醫撮要方)』

It was written by Ch'oe Chong-chun(崔宗峻) in the 13th year of King Kjong's reign(1226). Basically, it was gathered prescriptions from tea room. It was transmitted to Chos n(朝鮮) and was quoted in 『Hyang-yakchips ngbang(鄉藥集成方)』 . A foreword by I gyu-bo(李奎報) is found in the 21st chapter of 『Tonggugisanggukchip(東國李相國集)』 .

#### 4. 『Hyang-yakkuguppang(鄉藥救急方)』

It was published by National Publication Department of Kory (高麗) when attacked by Mongolia(蒙古). Its author is uncertain. Hyang-yak(鄉藥; Native herbal drugs) means herbs produced in our land, while herbs imported from China is called Tangjae(唐材). The purpose of



publishing this book is presumably to substitute Hyang-yak(鄉藥) for imported herbs. It is an important source for investigating medicine of middle-Kory (高麗) and Korean alphabets written under the name of a herb are used to study usage of Chinese letter with Idu(吏讀).



#### 5. 『T'aesanyorok(胎產要錄)』

It was written by No Chung-nye(盧重禮) in the 16th year of King Sejong's reign(1434). It consists of the first and the second volumes. The first one is about guidance on pregnancy and the second one is about raising infants.

#### 6. 『Uibang-yuch'wi(醫方類聚)』

In the 25th year of King Sejong's reign, he ordered to publish this book. And it was written by Kim Ye-mong(金禮蒙), Yu S ng-won(柳誠源), Min Po-hwa(閔普和) etc, the various officials of the time under the supervision of Anp'y ngdaegun(安平大君). After three years of categorizing all kinds of prescription books they completed 365 volumes. It was the 27th year of King Sejong's reign(1445). However, the actual number of volumes published is 266. It's because the draft was so vast that it needed much corrections. It is edited this way. First it is divided into 91 categories and then related diseases are discussed and the list of quoted books is compiled by years. Books that are

quoted cover from Han(漢) and Tang(唐) to Song(宋) and Won(元) and such books as 『Okkimi i(玉機微義)』, 『Igy ngsohak(醫經小學)』, 『Hwarinshimb p(活人心法)』, 『Suy kshinbang(壽域神方)』 are used. It is encyclopedic work which worked as the foundation of our medicine.

#### 7. 『Kanibyogonbang(簡易酸瘟方)』

In the 19th year of King Chungjong's reign(1524), epidemic broke in Py ng-an-do region that killed many people. It was prevalent to the next spring so the worried King sent many doctors and herbs to the region. This book is especially about the epidemic febrile disease(溫病) collected from various books by Kim Sun-mong(金順夢), Yu Y ng-j ng(劉永貞), Pak Sea-g (朴世舉) by the King's order. It was published in 1525, the text with commentary in Korean. The original book is not found but two kinds of books published in the 11th year of King S njo's reign(1578) and in the 5th year of King Kwanghaegun's reign(1613) are still extant. The former is kept in the library of Korea University and the book published in 1578 bound with

『Umayangj y my kch'iryobang(牛馬羊猪染疫治療方)』 is kept in Japan. The latter is kept in Kyujanggak(奎章閣) of Seoul National University. In this book, we find uses, pharmacy, and directions of 『Sohakhyangwon(蘇合香元)』, 『Shipshint'ang(十神湯)』, 『Hyangsosan(香蘇散)』, 『S ngmagalk nt'ang(升麻葛根湯)』, 『Tosoju(屠蘇酒)』, 『H y n g k w a n g h w a n (螢光丸)』, 『Hodusalkwiwon(虎頭殺鬼元)』, 『Shinmy ngsan(神明散)』, etc.





#### 8. 『Ch'imgugyonghombang(鍼灸經驗方)』

It is one volume book about acupuncture and moxa written by Heo Im(許任) in the 22nd year of King Injo's reign(1544). And it was published by Mok S ng-s n(睦性善) as requested by Heo Im(許任). As Heo Im(許任) manifested in his foreword, this book is about diagnosis, invigorating and cutting down, correcting misused acupuncture points and detailed, experienced exposition of points by diseases and symptoms.



#### 9. 『Urimch'waryo(醫林撮要)』

It was written by Yang Ye-su(楊禮壽) during the reign of King Myungjong and King S njo(around 1567). It consists of 13 volumes. According to the foreword of 『Tong-Ui bogam(東醫寶鑑)』, King Seonjo ordered Cheng Chak, Yang Ye-su, Kim ng-t'ak to compile a reference medical book. This book is supposed to have affected 『Tonguibogam(東醫寶鑑)』 a lot. Actually there are a lot in common between the two books concerning explanation and symptoms of diseases and selected prescriptions. Therefore, it should be considered as inception of 『Tong-Ui-bogam(東醫寶鑑)』 and Cheng Kyeongsun(鄭敬先), Yang Ye-su(楊禮壽) should be credited. Compared with 『Tong Ui bogam(東醫寶鑑)』, texts describing how to treat diseases with food and how to aid first are well pointed out.

#### 10. 『Onaet'aesanjibyo(諺解胎產集要)』

It is a book about gynecology, obstetrics, and prenatal check up compiled by H Chun(許浚) in the 41st year of King S njo's reign(1608). The text is explained in Korean. There was a book called 『T'aesanjip(胎產集)』 but was lost after Japanese invasion of Korea in 1592(壬辰倭亂) so H Chun(許浚) restored it. Most part of the book is quoted in 『Tong- bogam(東醫寶鑑)』. Most quotations are from 『ihagibmun(醫學入門)』 and 『ihakch ngj n(醫學正傳)』.



#### 11. 『Tong ui bo gam(東醫寶鑑)』

It was written by Heo Chun(許浚) in cooperation with Cheng Chak and Yang Ye-su in the 29th year of King Seonjo's reign(1596) as the King requested. It was completed in the 2nd year of King Kwanghaegun's reign(1610) and was





published by Nae ui won(內醫院). It consists of 25 volumes. It was started by Heo Chun(許浚) with the request of the King but was stopped because of the 2nd Japanese invasion of Korea in 1597. After the war, the King once more ordered Heo Chun(許浚) to complete the book and this time, the King allowed about 500 books kept in the national library to investigate. From then, Heo Chun(許浚) kept writing the book, but before it was completed, the King passed away. It was completed in the 2nd year of the successor's reign. It was the fruit of 15 years of hard work. When compared with 『Hyang-yakchips ngbang (鄉藥集成方)』, this book is more systematic, the basic theory is based on 『Naegeong(內經)』, and medicine in Kum-Won(金元) is widely accepted. Especially theories of Li Tong-won(李東垣) and Chu Chin-hyeong(朱震亨) from Kum-Won(金元) were considered highly. Their theories are based on the idea that pathogenic factors which bring diseases to people are from inside the people not from outside. It's human-centered thought. Therefore, in 『TongUi bogam(東醫寶鑑)』, statements regarding human physiology come first and then treating illnesses. It is composed of 5 chapters, 「Naegyeong(內景)」, 「Oehyng(外形)」, 「Chappyng(雜病)」, 「T'angaek(湯液)」, 「Ch'im-gu(鍼灸)」. In the end of every chapter, he recorded theories of the disease and the prescription and he clearly mentioned quotations. He also added his own ideas.

July 31st, 2009, almost four centuries later, and one year after its submission, this book has

been awarded inscription to **UNESCO's Memory of the World Register**.



## 12. 『Pyogonshinbang(痼癰新方)』

It was written by Heo Chun(許浚) in the 5th year of King Kwanghaegun's reign(1613). It was published by Nae iwon(內醫院) in the same year. It's on symptoms, patterns, treatments, and prevention of epidemic, t'angdoggy k(唐毒症). The symptoms of t'angdoggy k(唐毒症) are fever, headaches, rashes all over, mental disorder, a sore throat. These symptoms resemble that of scarlet fever. Quotations are from 『Neagyng(內經)』, 『Tong-bogam(東醫寶鑑)』, 『Sanghallon(傷寒論)』, and 『ihagibmun(醫學入門)』.

## 13. 『Kubyubang(及幼方)』

It is the first medical book on pediatrics written by Cho Chngjun(趙廷俊) in the 15th year of King Sukchong's reign. The original copy is lost but 6 volumes of hand scripts are extant. Though 『ihagibmun(醫學入門)』 and 『Soyakchengchikkyul(小兒藥證直訣)』 are quoted a lot, he focused on his own theories. This book is not on only mere enumeration of diseases and prescriptions but rather on pathology.



#### 14. 『Yang imi (瘍醫微)』

It was written by Shin Kiy ng(申耆永) in the 2nd year of King Hy njong's reign(1836). It's the collection of well known doctor Ichun(李宜春)'s secret prescriptions on abscess. It's now kept in Japan.

#### 15. 『Uimunbogam (醫門寶鑑)』

It was written by Chu My ng-shin(周命新) in the 4th year of King Ky ngjong and corrected by I My ng-s k(李命錫) and was published by Tongs gwan(東書館) in 1918. Diseases are discussed in question and answer form. There are 124 questions on various diseases. Since pathology, directions, treatments, pathogens and pathogenesis are so easily explained, even the beginners can learn easily.

#### 16. 『Tong-ui suse bowon(東醫壽世保元)』

It was written by Li Che-ma(李濟馬) in the 31st year of King Kojong's reign(1894). He started the work in 1893 and wrote two volumes of the book. In 1900 he added a few more chapters, from 「S ngmy ngnon(性命論)」 to 「T'ae millon(太陰人論)」, but couldn't finish last three chapters including 「T'aeyang-illon(太陽人論)」. One year after he died his disciples published the book in Hamh ng(咸興). In this book, people are divided into four constitutions(t'aeyang, so m, soyang, t'ea m), therefore, if constitution differs, diseases show different characteristics,

resulting in different treatment.



#### 17. Compilation of formulas and Medicinals (方藥合編)

It was written by Huang Do Yeon (黃度淵). He wrote numerous books and this one is compilation of formulas proven by his own medical practice. The author considered the principles and practice of Eastern Medicine was so voluminous. In order to enhance its practicality and convenience of practitioners in clinical uses, he tried to summarize into this book. His son finished the work in 1885 after his death.

It provides standardized practical approaches to the practice of traditional Korean medicine, which were valid throughout the history, and is also considered indispensable for any practitioner of present day.



#### 18. Sa Am Doin Chingu Yogyul (Essence of Sa Am Acupuncture) 舍岩道人鍼灸要訣

This book is the only existing, original text



about Sa Am Acupuncture.

It was written by Lee Tae Ho (李泰浩) through his translation with notes. Of course, this book was based on sa am's clinical records.

Furthermore this book contains a holistic and systematic acupuncture method as well as clinical records by sa am himself. He was a buddhist zen monk, physician of Chosun Dynasty. To treat disease, Sa Am Acupuncture uses a combination of Five Transporting points of the involved meridians.

So sa am acupuncture is the Principle Acupuncture (原理針法) unlike the conventional Chinese acupuncture style A-shi and body acupuncture methods. The main principle is “for deficiency tonify the mother, for excess reduce the son” in Nanjing. In addition to this principle, Saam Acupuncture uses another principle, which is “for deficiency reduce the controller (controlling element), and for excess tonify the controller”.



## The Three Great Physicians of the Chosun Dynasty

### 1. Ho chun(許浚; 1546 ~ 1613)

The pen name of him is Kuam(龜岩). He was

born in March, 1546 in town called Yangch'un(陽川). His father was Ho Ron(許) the 20th generation of Heo Son-mun (許宣文) the forefather. His great grandfather was governor of Yong-wol(寧越), his grandfather was Kyongsang superintendent(慶尙右水使), and his father was Yongch' n senior superintendent(龍川府使). In 1574, he passed the national examination for royal doctors. It was when he was 29 years old. The Japanese invasion of Korea in 1592 broke out when he was 47 and he escorted the King to uiju(義州). In 1600 he became the head of royal doctors. It was when he was 55. In 1610, he completed 25 volumes of 『Tong ui bo gam(東醫寶鑑)』 and it is considered as the landmark in the history of Korean medicine. In 1613, he published 『Shinch'anby gonbang(新纂癰疽方)』, and passed away in the same year when he was 68.



### 3. Lee Che-ma(李濟馬; 1837-1900)

His literary name is Tongmu(東武). He is the one who established Korean Four Constitutional Medicine. He was born bright and enjoyed all kinds of physical works for example, riding a horse or shooting an arrow. In his early days, he traveled all over the country and even to foreign countries to study and train himself. When he came back to his home town he passed the



military service examination and served as a military officer. He studied medicine himself and wrote 『Tong- isusebowon (東醫壽世保元)』, when he was 58 years old.



## 2. Master Sa-Am

Master Sa-Am was one of the Three Great Physicians of the Chosun Dynasty. But for 50 years, his Art of Acupuncture was forgotten. After meditating for 13 years in a cave, Sa-Am opened his mind's eye, and saw through to the core of Acupuncture's mystery. It is said that Master Sa-Am was either the Great Monk of Samyong Dang, or else his disciple. According to his only surviving clinical record, he claims to have cured in a single treatment a patient who had been suffering from an ailment for dozens of years. Yet, despite its wondrous power, the true principles behind Sa-Am Acupuncture's power was fated to remain hidden, without having the chance to see the light of day. 16 years since the resurfacing of the Master's Medicine, and now in the hands of over two thousand students of the Art, Sa-Am Acupuncture is at last receiving the attention of the public it deserves throughout the world.



### The uniqueness of Sa-Am acupuncture.

1. Conventional acupuncture observes the particularities of a given symptom, and then treats the ailment by affecting the meridian related to the symptom. Sa-Am Acupuncture differs from the conventional approach. Sa-Am Acupuncture treats and observes the patient as a holistic subject, and thus treats the ailment at the point of its real origin.

2. Sa-Am Acupuncture has proven that the meridians serve as the path by which the mind manifests its various dispositions. Sa-Am Acupuncture is essentially Mind Acupuncture.

3. In each of the Meridians there are sixty meridian conduits in which the particular characteristics of each of the Five Elements (Metal, Water, Earth, Wood, Fire) are concentrated. Sa-Am Acupuncture is effective because it treats only those sixty conduits.

4. Sa-Am Acupuncture is safe because it treats primarily those conduits which are found at the ends of the limbs, and at the elbows and below the knees.

5. Sa-Am Acupuncture is an acupunctural art unique to Korea.





## Sa-Am Acupuncture



### What is Sa-Am acupuncture?

- ❖ Founded by Sa-Am, 450 years ago in Korea
  - Sa-Am, a zen master and acupuncturist in Chosun dynasty, Korea
- ❖ Principle acupuncture based on yin-yang and five element theory
  - Pointselection according to the principles
- ❖ Meridian is the route of mind and emotions
  - Acupuncture can affect the mind as well as the body
- ❖ Origin of five element acupuncture
- ❖ Effective and safe
  - Use mainly five shu points on the limbs

6. Sa-Am Acupuncture has gone beyond the limitations of conventional acupuncture and has opened a new horizon of possibilities.

### The principles of sa am acupuncture.

Saam's acupuncture method uses the “虛者補其母 實者瀉其子”(for deficiency, tonify the mother, for excessiveness, purge the son) principle from 『難經·69難』 (the 69 difficulties from "Nan-Gyeong" which means "Difficult Classic"). It uses 2 acupuncture points from the 自經(meridian to which it belongs to) and 2 acupuncture points from the 他經(meridian to which it does not belong to) to cure the patient. This "Saam's acupuncture method" is the original model for the "8 constitution acupuncture method" and "fire acupuncture method" which were created later on. In 『舍岩道人鍼灸要訣』 (Saam Doin Chingu Yogyul), there are many case records using the Saam's acupuncture method to cure patients. This book is the only existing, original text about Sa Am Acupuncture.

## Sa-Am Acupuncture



### Principles of Sa-Am acupuncture

- ❖ For deficiency, tonify the mother; for excess, reduce the son
  - *The Classic of Difficulties*, chapter 69
  - Generating cycle(相生), controlling cycle(相剋)
- ❖ For deficiency, reduce the control; for excess, tonify the control
  - Unique to Sa-Am acupuncture
  - Controlling cycle
- ❖ Five elemental properties of channels
  - Spleen channel: earth, heart channel: fire
- ❖ Five elemental properties of shu points
  - SP1: wood, SP2: fire, SP3: earth, SP5: metal, SP9: water



It was written by Lee Tae Ho (李泰浩) through his translation with notes. Of course, this book was based on sa am's clinical records.

Furthermore this book contains a holistic and systematic acupuncture method as well as clinical records by sa am himself. He was a buddhist zen monk, physician of Chosun Dynasty. To treat disease, Sa Am Acupuncture uses a combination of Five Transporting points of the involved meridians.

So Sa am acupuncture is the Principle Acupuncture (原理針法) unlike the conventional Chinese acupuncture style A-shi and body acupuncture methods. The main principle is “for deficiency tonify the mother, for excess reduce the son” in Nanjing. In addition to this principle, Sa am Acupuncture uses another principle, which is “for deficiency reduce the controller (controlling element), and for excess tonify the controller”.





- General principles of Saam acupuncture
  - For deficiency, supplement the mother and drain the suppressor. (虛則補其母, 虛則抑其官)
- Classic of Difficult Issues(難經) chapter 69
- Engendering relationships(相生)
- Traditional five phase acupuncture methods
  - For excess, drain the son and supplement the suppressed (實則瀉其子, 實則補其 )
- Restraining relationships(相剋)
- Unique in Saam acupuncture method.
  - Inter-meridian relationships are also considered.
- Generally 4 points are used in Saam acupuncture
  - 2 points from the affected meridian(自經)
  - 2 points from other related meridians(他經)
  - The 2 points are selected either
    - by engendering relationships(相生)
    - or by Restraining relationships(相剋) of Five Phase characteristics of the five transport points.

The following is In case of spleen meridian deficiency

- Considering that
  - spleen meridian belongs to Earth
- Five transport points of the spleen meridian: SP1-wood, SP2-fire, SP3-earth, SP5-metal, SP9-water
- The order of five phase traits of five transport points in Yin meridians are: Wood, Fire, Earth, Metal, and Water from the fingertip or the toetip area
- The order of five phase traits of five transport points in Yang meridians are: Metal, Water, Wood, Fire, and Earth from the fingertip or the toe tip area.
  - Fire meridian: HT
    - a. HT9-wood, HT8-fire, HT7-earth, HT4-metal, HT3-water
  - Wood meridian: Liv
    - b. LIV1-wood, LIV2-fire, LIV3-earth, LIV4-metal, LIV8-water
- Intra-meridian points
  - SP 2 (大都) supplemented (engendering relationship): fire point
  - SP 1 (隱白): drained (restraining relationship): wood point

### Sa-Am Acupuncture



In the case of spleen channel deficiency - Tonification formula

#### 1. Tonify mother points

- HT 8 (少府): fire point of fire channel  
HT9-wood, HT8-fire, HT7-earth, HT4-metal, HT3-water

- SP 2 (大都): fire point of spleen channel  
SP1-wood, SP2-fire, SP3-earth, SP5-metal, SP9-water

#### 2. Reduce control points

- LIV 1 (大敦): wood point of wood channel  
LIV1-wood, LIV2-fire, LIV3-earth, LIV4-metal, LIV8-water
- SP 1 (隱白): wood point of spleen channel



- Inter-meridian points
  - HT 8 (少府) supplemented (engendering relationship): fire point
  - LIV 1 (大敦) drained (restraining relationship): wood point
- so, The four points are Sa am acupuncture points in case of spleen meridian deficiency.



**Deficiency conditions are treated by using the following methods**

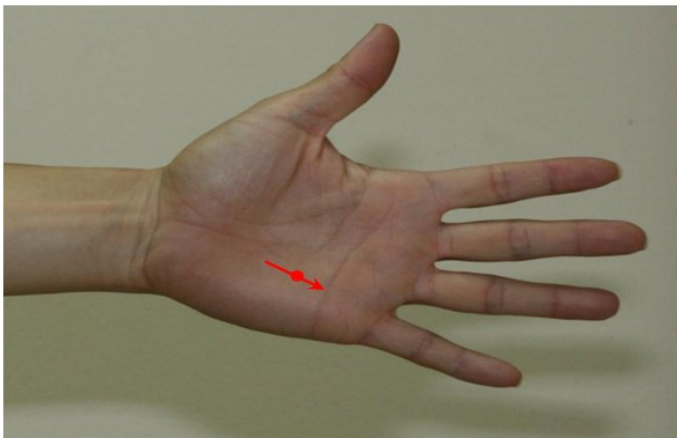
Tonify the horary point on the mother organ's channel. Horary means that the point's element and the channel's element are the same, for example, the fire point on the fire channel.

Tonify the mother organ's element point on the affected channel.

Sedate the horary point on the "controlling" organ's channel.

Sedate the controlling organ's element point on the affected organ.

In saam acupuncture practice , when you want to tonify the points, you should place the needle's tip at a 0~ 45° angle with the meridian flow (in the forward direction of the meridian flow), with rotation clockwise or to the right side 9 times, whereas you should place the needle's tip at a 0~ 45° angle against the meridian flow (in the reverse or in the opposite direction of the meridian flow), with rotation counter-clockwise or the left side 6 times if you want to sedate the points.



HT 8 (少府) supplemented

Never supplement HT 8 (少府) if patient's

pulse is too fast and tense, or he or she has headache and hot oriented constitution, !!!



SP 2 (大都) supplemented



LIV 1 (大敦) drained



SP 1 (隱白): drained

### Basic Formulae of Sa-Am Acupuncture

| Channel | Tonification Formulae |      |        |      | Sedation Formulae |      |        |      |
|---------|-----------------------|------|--------|------|-------------------|------|--------|------|
|         | Tonify                |      | Reduce |      | Reduce            |      | Tonify |      |
| LU      | SP3                   | LU9  | HT8    | LU10 | KI10              | LU5  | HT8    | LU10 |
| LI      | ST36                  | LI11 | SI5    | LI5  | BL66              | LI2  | SI5    | LI5  |
| ST      | SI5                   | ST41 | GB41   | ST43 | LI1               | ST45 | GB41   | ST43 |
| SP      | HT8                   | SP2  | LIV1   | SP1  | LU8               | SP5  | LIV1   | SP1  |
| HT      | LIV1                  | HT9  | KI10   | HT3  | SP3               | HT7  | KI10   | HT3  |
| SI      | GB41                  | SI3  | BL66   | SI2  | ST36              | SI8  | BL66   | SI2  |
| BL      | LI1                   | BL67 | ST36   | BL40 | GB41              | BL65 | ST36   | BL40 |
| KI      | LU8                   | KI7  | SP3    | KI3  | LIV1              | KI1  | SP3    | KI3  |
| PC      | LIV1                  | PC9  | KI10   | PC3  | SP3               | PC7  | KI10   | PC3  |
| SJ      | GB41                  | SJ3  | BL66   | SJ2  | ST36              | SJ10 | BL66   | SJ2  |
| GB      | BL66                  | GB43 | LI1    | GB44 | SI5               | GB38 | LI1    | GB44 |
| LIV     | KI10                  | LIV8 | LU8    | LIV4 | HT8               | LIV2 | LU8    | LIV4 |

Yeonil Jeong, M.D.

Doctor of Korean Medicine & Director of  
Foreigner Affair of Association of Korean  
Medicine

e-mail: [urix2@daum.net](mailto:urix2@daum.net)

### Sa-Am Acupuncture



In the case of liver channel excess – Sedation formula

#### 1. Reduce son points

- HT 8 (少府): fire point of fire channel

HT9-wood, HT8-fire, HT7-earth, HT4-metal, HT3-water

- LIV 2 (行間): fire point of liver channel

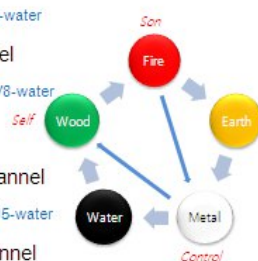
LIV1-wood, LIV2-fire, LIV3-earth, LIV4-metal, LIV8-water

#### 2. Tonify control points

- LU 8 (經渠): metal point of metal channel

LU11-wood, LU10-fire, LU9-earth, LU8-metal, LU5-water

- LIV 4 (中封): metal point of liver channel







## Acupuncture and system's interactions

Teodor Mochnáč, M.D., PhD.

### Abstract

Author refers about substance of the interaction of acupuncture

microsystems

The author refers principles of the operation open systems and application at a acupuncture microsystems. Fundamental principles as a holographic, morphogenic fields, free-scale fractal structures and a category of the information apply in the communication of systems of energy-interaction, psycho-regulative and bio-morphological levels. Practical experiences confirm essence of such functioning and suggest at the multidimensionality of events, what enables the holistic access to the diagnosis and treatment.

**Keywords:** Acupuncture microsystems, interactions, fractals, morphic fields, information

At a introduction I would like presented, how's possible that the acupuncture performs ?. Ground imaginings oneself related to categories as an energy, life energy, elements, micro - systems, meridians, acupuncture points.

Basically they are concepts, which are maybe known, every otherwise, in who oneself hide knowledge various scientific business. Concepts, as such, are explain slack, poetic

comparison, frequently sorted from to the east literature (like Chinese medicine, Indian medicine e.c.) without understanding fundamentals of cultural cumulative legacies by herself landscapes and without physical nature of the acupuncture relationships..In such a way an acupuncture therapy evokes indignation of religious companies, political structures, the public and scientific institution too.

It is a question. How is possible an acupuncture works?

An experiences confirm a material substance of acupuncture actions. If the energy – interaction level (the acupuncture) is an material substance we observe biochemical changes at the physical state organism too. It is talk about bio-morphological level of the organism.

Following that the material essence of the human system we differentiate by four or more plains. Bio morphological, psycho-regulative and energy-interactive levels. They are material substances and but the first is a spiritual level.

If subsystems communicate together the system of the human is a function unit.

The functionless system we try transfer to be balanced. We enter with him to the interaction, to know him.

And here we arrived at sequent category in acupuncture namely the information.

This category was not define like a substantial



essence till now. Only it's manifestation is observed. We are talking about organisation like manifestation of the information.

Tom Stonier one of the authors the common information theory. A theory is proposed which considers information to be a basic property of the universe the way mater and energy are.

Information is not only mental construction we understand the world, is a basic property of the universe the way mater and energy are. The discretionary system organised in the time and space show out an information content. Information is defined operationally as possessing the capacity to organize a system.

It does not imply that information is all and only the most microscopic physical manifestation of matter and energy.

Information is everywhere except where there is total entropy.

When we talking about systems I would like bring to mind Ludwig von Bertalanffy (1901-1972) who is one of founders of the General Systems Theory. He explained an behavior and property of opened systems – course to the dynamic balance, describes systems with interacting components, applicable to biology systems too.

Theory emphasizes concepts both in part and as a whole. He generalising concepts a whole, organization, equifinality a common property of opened systems to bring into dynamic balance of systems and of the isomorphysm (a relative similarity of mathematical systems).()

Because the system widely and in of our case EIS finds oneself in dynamic balance is situated in a certain space-time relations in time dimension is always another, it occurs in another dynamic condition. This energy - interaction state oneself manifests by either somatic manifestation or without signs.

In acupunture we restore patient to health in such a maner, that we transform him to the another dynamic condition compare to the pathologic condition before.

According to Einstein's common relativity theory the time dimension isn't linear.

According to the common relativity theory the clock running doesn't depend on it's relatively velocity but also on the position in the gravitational field.

The time on the hill will pass faster than time in the valley.

In the earthly gravitational field is not much noticeable this effect we observe, but for example nautical system GPS modifies frequency signal to prevent mistakes in the orientation of the position.

The Hungarian-British physicist Dennis Gabor was awarded the Nobel prize in Physics in 1971 for his invention and developent of the holographic method. His work related to built in the field of X-ray micoroscopy. Term holography comes from the Greek word meaning „whole“ and graphos „meaning message“.

A hologram can be made by shining part of the laser light beam directly onto the recording medium, and other part onto the object in such a





way that some of the scattered light falls onto the recording medium and to carry out a picture.

The holographic principle

1. Tree or a lot of dimensional structures
2. The concept the whole in every part - information about every details of the whole hologram recorded in the every part. We can paradoxically denominate it the planimetric three – dimensionally picture. Holographic principle of the human presents his multidimensionally nature.

Alain Aspect (1947) is a french physicist, the author of the holographic universe theory. He discovered that under certain circumstances subatomic particles suchas electrons are able to instantaneously communicate with each other regardless of the distance separating them.

Rupert Sheldrake (1942) is a former biochemist and plant physiologist, author of the morphic field theory. Duringhisresearches with the plants and animals, he found that it is a kind of memory in the form of his morphogenic or morphic field of each species of organism . Morphogenic fields interacts with all the animals).

In the course of time organisms create any kind of collective memory.Morphogenic fields interact with all the animal, plants and mineral forms and their are place of cumulation at the same time experiences of the type as a whole.

In the morphogenic field accumulates the cumulative experience of all natural species and then retrospective works on the formation of their

physical forms, instincts and behaviors.

Professor Ted Stonier (1927 – 1999) the biologist author of the general information theory says that information is not only mental construction through that we understand world , but it is a property of the space so energy and substance are.

The optional system that is organized in time and space shows informative content

Like the weight is the manifestation of the substance, the heat is the expression of the energy, the organization is the manifestation of the information.

The three main groups od information according to Stonier are:

1. The human information
2. The structural information
3. The immaculate infomation

Stonier at it's consideration assumes that fermionoms are the expression of he substance, bozoms of the energy . The particle's expression of the information represents phonons excitons and potholes after the electrons banished from its roads.

The tendency to materialize the substance of the information based on the evidence base are they unsuccessful. Till now the material essence of te information was not confirm.The uniforming together category that applyes in about of all desigated principles is a categoryof the information.

Albert-László Barabási, (1967), romanian



scientist born in Hungary found square relations asserting in fractal characteristics. Any fractals we can define like objects established

by recourse with they have interesting facilities. Until now that their table of contents, or volume is final, their circumference or surface is infinite. Another interesting property of fractals is, that contain copies of themselves. The characteristic lengths is absent and we call it afreescaled fractal structures. It means, that we examine the fractal we discover always the same patterns.

Fractals characterize relationships between systems. We are talking about free-scale fractal structures.

In the acupuncture diagnose we use multilevel mathematical method to determine and evaluate the energy-interactive state of patient's display systems.

The tactile Solar test is a diagnostics which verifies important criterions for ways of the diagnostics, prediction diseases and for the study an free.scale relationships of the systems.

The holographic principle suggests at a multilevel system's organization, with we understand in its bio-morphology, psycho-regulative, energy-interactions and transcendental connections. It expresses a multilevel organization of dimensions, with up to now we are perceive only in four dimensions.

The morphogenic field principle also express connections between four level organisation of

the human system.

The freescale fractal principle we perceive how interactions work between elements.

Relationships of the birth and control in the pentagram cycle direction or in the opposing pentagram direction, clean and turbulent hypercompositional or decompositional algorithms are examples how fractals can be functional.

The intention is mediated by information. It defines the selection of the interaction and a way of rating events.

In the clinic conditions we determined an acupuncture diagnosis by the comparative examination tactile Solar test, skin impedance and biodeagnostics and we found out the different „acupuncture diagnose“, different places of entrances or projections of acupuncture points. Results were controlled by tactile Solar test.

We created three groups of patients according to the method of the examination.

The group of patients examined by TST and TST of the extrameridian subsystem,

The group of patients examined by TST and the biodeagnostic of the extrameridian subsystem,

The group of patients examined by TST and the skin impedance of the extrameridian subsystem.

It follows that the systems communicate with each other and you could figuratively say, "all roads lead to Rome".

In the acupuncture diagnosis is therefore common to perceive the body as an open



system, which activity is provided by number of subsystems functioning in different of known planes or even of unknown plains.

Let's take the example of a variety therapist treatment.

Depending on the experience with access to the same patient is different and wonder of wonders, there is an improvement in the condition of the patient using a variable.

Basically, we treat hypertension, allergies, pain of different kinds by combination of the different acupuncture points.

However, but no point is treating but the way of the interaction between systems. This interaction is mediated by the acupuncture point.

In routine medical practice, we are used to evaluate the morphological and functional status of the human's body system, which is characterized by the name of the disease-diagnosis. Tactics of treatment is currently focused on the elimination of the disease. Often times we don't realize another contexts.

In the acupuncture we assess the status of the energy-interaction system and its subsystem's connections

We are talking about microsystems, or display systems, or subsystems.

## Conclusion

1. Acupuncture display systems fulfil the characteristics of the holographic principle, morphogenic field principle, free-scale fractal structures.

2. The nature of the therapeutic intervention

is focused on communication and is directed to the anentropy. The result depends on the therapist's

3. The result depends on the therapist's target and on the way of the interaction

Teodor Mochnáč, M.D., PhD.

Centrum of Acupuncture and diabetic foot

Pod vinohradmi 14 A

949 01 Nitra, Slovak Republic

e-mail: tmochnac.akupunktura@gmail.com

## Bibliography

1. Hawking, S. *Vesmír v orechovej škrupinke*. Bratislava : Slovart, spol. sr.o., Bratislava,, 2006. s. 216 . ISBN 80-7145-668-8.

2. Fiala, P. *Holografické paměti*. <http://www.fi.muni.cz/usr/jkucera/pv109/2004/xfiala4.htm>. [Online] [Dátum: 25. 8 2013.]

3. *Vesmír ako hologram. Existuje objektívna realita, alebo je vesmír ?* <http://www.parnas.cz/vesmir.html>. [Online] [Dátum: 25. 8 2013.]

4. *Ludwig von Bertalanffy*. [http://en.wikipedia.org/wiki/Ludwig\\_von\\_Bertalanffy](http://en.wikipedia.org/wiki/Ludwig_von_Bertalanffy). [Online] Wikipedia. [Dátum: 25. 8 2013.]

5. *Úder materialistickej vede (alebo morfickej rezonancie)*. <http://jozefkamensky.blog.sme.sk/c/142935/Uder-materialistickej-vede-alebo-morficke-rezonancie.html>. [Online] [Dátum: 25. 8 2013.]



6. *I n f o r m á c i a* .  
[http://sk.wikipedia.org/wiki/Inform%C3%A1cia#Jednotky\\_inform.C3.A1cie](http://sk.wikipedia.org/wiki/Inform%C3%A1cia#Jednotky_inform.C3.A1cie). [Online] Wikipedia.  
[Dátum: 25. 8 2013.]
7. S, Palúch. *Teória informácie*.  
<http://frcatel.fri.uniza.sk/users/paluch/ti.pdf>.  
[Online] 2008. [Dátum: 25. 8 2013.] ISBN-80-8070-XXX-X.
8. F., Slanina. *Teorie sítí: společný jazyk buňky a internetu*. <http://archiv.otevrena-veda.cz/users/Image/default/C1Kurzy/NH2006pdf/6.pdf>. [Online] [Dátum: 25. 8 2013.]
9. Solárová, Z. *Diagnostické možnosti a perspektívy modifikovaného dotazníka MKBD-S podľa autorov Korngolda a Beinfielldovej*. Bratislava : Lekárska spoločnosť prírodnej medicíny, 7 2013, 1, s. 20-24. ISBN 978-80-970500-3-0.





## NOVINKY na slovenskom trhu

Spoločnosť VitaFit spol. s r.o.

ponúka komplexnú starostlivosť týkajúcu sa maximálneho pohodlia boľavých nôh a ošetrovania kurieho oka. V sortimente máme špeciálne topánky a vložky na rôzne deformácie nôh a výrobky proti plesniam a baktériám.

### Ponúkame

**Silikónovú podpätenku na päty**  
a **silikónovú vložku do topánky**  
– s podporou priečnej aj pozdĺžnej klenby – proti bolesti preťažených kĺbov a chrčtice. Výrobky sú plne elastické z vysoko kvalitného materiálu. Na Slovensku je to novinka.

Maximálne pohodlie ponúkajú z Anglicka, od firmy Cuxson and Gerrard, dovážané špeciálne vložky s vrstvou z najkvalitnejšej ovčej kože.

- **Celé vložky do topánok – Perfect form**  
– s podporou pozdĺžnej klenby,
- **vložky do topánok s podporou priečnej klenby – Arch form,**
- **¾ metatarzálné vložky do topánok – Meta form,**
- **podpätenky – Heel form,**  
s odstrániteľnou strednou časťou pre osoby trpiace výrastkami na päte.

Sviežosť a hygienu nôh pomáhajú udržať špeciálne antibakteriálne a protiplesňové výrobky

- **Sprej proti plesniam** – jeho účinok proti baktériám a plesniam potvrdzuje lekárska prax
- **Trvácne vložky do topánok proti baktériám a plesniam** – navrhnuté pre zmiernenie nárazov, únavy a bolesti, ich antimikrobiálna zložka likviduje baktérie a plesne
- **Trvácne podpätenky proti baktériám**
- **Deo vložky do topánok** – aktívna

Odporúčame tiež vyskúšať spreje na chodidlá a ďalšie produkty, napr. ponožky so strieborným vláknom na každodenné nosenie – aj pre diabetikov! Výrobky majú vysokú kvalitu.

uhlíková vrstva absorbuje zápach, antibakteriálna zložka zastavuje ich rast

- **Pohodlné vložky do topánok**  
– pomocou penového materiálu zabezpečujú celodenný komfort
- **Výstelky na päty**

Široký sortiment produktov ponúkame aj na prevenciu proti otlakom a pluzgierom

- **Tyčinku proti otlakom a pluzgierom**
- **Gélový oddeľovač prstov na nohách**
- **Gélový oddeľovač palca na nohe**
- **Gélové vložky do topánok**
- **Gélový chránič na výčnelok alebo pluzgier** a na ošetrovanie už existujúcich otlakov a pluzgierov
- **Náplasti na otlaky**
- **Zvláčňujúca starostlivosť o otlaky**
- **Tlmiace vankúšiky na výčnelky a pluzgiere**

V našej ponuke nájdete prípravky a výrobky na ošetrovanie kurieho oka

- **Prípravok na odstránenie kurieho oka**
- **Náplasti na kurie oká**
- **Zvláčňujúce náplasti na kurie oká**
- **Tlmiace vankúšiky na kurie oká, oválne a okrúhle**



Výrobky na slovenský trh dodáva:

VitaFit spol. s r.o.

Kontakt: 0905 448 715

www.epredaj.com





### You can do nothing but experience it

Ján Hruška, M.D.

Sometimes long ago when I had been only a student of medical university in Martin, in 1984, I took part in a

meeting called „Purkyňka“. The topic was „psychotronics“. That time it had been the term nowadays known as „alternative medicine“. Now I know that this term is not correct, but back in 1984 it was brand new for all doctors and medical students, too. Who- especially in that time of materialistic society, could not have been interested in the miracles with the twig? Still there was another miracle: a very special field of knowledge had been opened for medical experts. That was the reason why the room was full of people. And my personal curiosity was stimulated, too. From that day it took 28 years until I returned back to those problems. One day after my 50th birthday I was sitting in the school again, attending the course of acupuncture.

I had read something already. I had seen many things already. I had known I could not know everything in an instant.- I had considered what new could I get. At the beginning, it was quite simple, we all were genuinely surprised about how many connections are concealed in the pentagram. Then we felt like we couldn't learn the web of meridians as quickly as we wanted. But our teachers knew that! For how long had they been learning it? And suddenly I saw the acupunctural points do exist. Now, I am even able to find them with quite the accuracy. And they are really working! I can feel them. And when I see my colleagues – I feel they share the same disbelief with

me, but also my joy of new knowledges. I am not talking only about medicine, because we are taught one basic and well known thing: if someone has something amputated, he lacks it. Someone lacks one of his extremities. Other his empathy. Next one his spiritual part. And now I am able to see all the connections- neurosis, panic diseases, depressions, myoms, malignities. During 25 years spent in gynecological practice of first contact, the doctor gets to know many stories, many relations and their development, he gets older along with his patients. Young girls that once came to young doctor are grown-up women nowadays. In my practice, I take care of one young lady, who was born the day I had first entered gynecological ward. She has got a two years old daughter by now. This is why I connect my knowledge of psychoregulative level to real stories almost immediately. I see those connections intuitively and I see why did some things happen.

Other surprises awaited us when debating about acupunctural anamnesis. It begins by remembering our prenatal life and events during the pregnancy. There is a magazine called „The Prenatal child“ established on the University of St. Elisabeth. Any medical practice could send stories for this magazine. This could be one of them: our patient have been trying for years to have a child. She is married and her husband family pushes her hardly. Our patient feels second-rated. Eventually she gets pregnant, but unfortunately she undergoes a missed abortion in 12th week. After all of this our patient is really sad. Few years pass and our patient is back in our medical practice. She decided to ask for cessation of marriage. For that she asks her doctor to give her a medical

## An insight into the acupuncture thinking

You can do nothing but experience it

Ján Hruška, M.D.



confirmation of the time of her missed abortion. Only then we get to know that by that time she was texting her husband from another mobile number. She was sending him words of love and he was answering. In fact, she proved that he wasn't true with her, but she didn't say anything until his unfaithfulness came out to light. Could possibly have her pregnancy end up successfully? But by that time we were talking about complex meridians and I was completely out of the line. And my examination was approaching...

Now I can see my clients in different light as I used to, trying to understand their stories more deeply. Nowadays, gynecological practice is no more only „hardware“ control, it is applied psychology and its mixing with other medical departments. It happens that we- „somatic doctors“ don't like to witness our colleagues from different field, especially an acupuncturist to make proper diagnosis. But our lessons kept going and we heard many bonmots such as: And why did that doctor panic? (about panic disorder). Another patient came, having gastrointestinal troubles. She had a hard destiny- she was divorced, used to look after her brother, who eventually died on cancer of testes. I saw an iron ship, sitting low on the water, just about to sink in the depths of fear. We through out diazepam and spoke for about half an hour. It was enough to show her the path of joy. She came again in two weeks time, much more satisfied then before. Although she had had few tablets of light antidepressive agent, she needed it no more. But still, she hadn't found her courage to confess. Something happened nevertheless. She lost an earring in Liptovská Mara, the one she had been given by a man she physically broke up with long ago. Doctor-alopat and many others may be surprised while acupuncturist isn't. It is quite logical for him. And he is just at the beginning. Finally, it was time for us to start working with needles. We were as nervous as

before our first intravenous injection. And then.... we were in. I am sorry we knew nothing about acupuncture but her very existence for such a long time. On my way home I walked down the town. That amount of „acupuncture practice“ can hardly go unnoticed, but I can see no doctor in this business. Where are all those nonsense regulations about who and where can have his practice, how much and what kind of attestation one needs and what hygienic requirements are?

Hot summer 2013 came and so came the holidays. Who is not on holiday, is on duty in hospital. One of my colleagues had dorsal pain and nonsteroid antirheumatics were doing him no good anymore. So I tried- at first gently, only with the acupressure. Suddenly the pain was gone and my colleague felt much better. I won't lie, it surprised me as well and I was looking forward to our next meeting on our „alma mater“.

I have a daughter back at home, studying medicine. In time of my examination she was preparing for her pathology exam. So we studied together. I have told her everything is hidden in the pentagram. What if this would be the first impulse for her? Calling her to study more? I, myself, am impatient to get some more, especially after Bratislava, where I saw, with my own eyes, how sensibility was restored in the scar left from the breast-reconstruction, how dorsal pain went away after stimulation of rotating rectal microsystem and how an old man, who had suffered from glaucoma, was able to read papers for three days after acupunctural session...well, you cannot explain this. You can do nothing but experience it.

Ján Hruška, M.D.

ZDRAVSTAR, s.r.o., M.Madačova 5, 034 01  
Ružomberok

e-mail: [gynambrk@gmail.com](mailto:gynambrk@gmail.com)





# Advertisement

## Certified ACUPUNCTURE NEEDLES, MODELS AND ACCESSORIES

### Available sizes for sterile needles:

#### Stainless steel needles with a guiding tube (Exp. 2017 and 2018)

- Ø 0,20 x 13 mm ▪ Ø 0,20 x 25 mm ▪ Ø 0,25 x 25 mm
- Ø 0,20 x 50 mm ▪ Ø 0,20 x 40 mm ▪ Ø 0,25 x 60 mm
- Ø 0,30 x 40 mm ▪ Ø 0,30 x 50 mm ▪ Ø 0,30 x 60 mm
- Ø 0,30 x 75 mm ▪ Ø 0,30 x 100 mm

#### Stainless steel needles without a guiding tube (Exp. 5/2016)

- Ø 0,20 x 13 mm ▪ Ø 0,25 x 25 mm
- Ø 0,25 x 40 mm ▪ Ø 0,30 x 40 mm

#### Stainless steel ear needles

(shape of a pressclip with a plaster)

- Ø 0,20 x 1,3 mm
- Ø 0,22 x 1,5 mm

#### Stainless steel ear needles

(without plaster)

- Ø 0,18 x 5 mm



**www.ANEZKA.sk**



**POSTAGE FOR FREE**  
for all orders above 200 €  
(use promo code ACE45914)

**ORDER  
IN ENGLISH**

+421/915/476 022  
objednavky@anezka.sk

## SALE 10 + 1 FREE

For every ten purchased boxes of needles  
you will receive one box for FREE.

|   |        |
|---|--------|
| Stainless steel sterile needles 50 + packagings | 3,29 € |
| ACU stainless steel needles 30 – 49 packagings  | 3,60 € |
| ACU stainless steel needles 20 – 29 packagings  | 4,00 € |
| ACU stainless steel needles 10 – 19 packagings  | 4,30 € |
| ACU stainless steel needles 1 – 9 packagings    | 4,60 € |
| ACU singleuse hammer                            | 2,49 € |
| ACU hammer with 12 heads (7 star hammer)        | 9,92 € |

\* prices are including tax,  
each packaging contains 100 needles.



Registered medical device  
with registration code:  
**ŠÚKL 2009/01155/70858**



**ANEŽKA CENTRUM, s.r.o.** ▪ Alžbetina 18 ▪ 040 01 Košice, Slovakia

+421/915/476 022

**www.ANEZKA.sk**

**ANEŽKA CENTRUM, s.r.o.** ▪ Alžbetina 18 ▪ 040 01 Košice, Slovakia

+421/915/476 022

**www.ANEZKA.sk**

Editorial office is not responsible for the content of advertisements.





**Effect of activating natural juice from the pulp  
of the fruit giant pumpkin (*Cucurbita maxima* L.)  
with turbine vital to certain physical characteristics**  
Doc. Ing. Ján Brindza, Csc., et al

#### Abstract

The aim of this work is to determine the effect of activating the natural pumpkin juice

with turbine vital to the stability of certain physical characteristics. For the experimental purposes, the fruit of a giant pumpkin (*Cucurbita maxima* L.) landraces originating from Serbia was used. We got natural juice from the juicer. After filtration, the juice was activated with vital prototype turbine Kalyxx (variant is labeled A1). As a control, a variant natural juice without activation was used. In both scenarios pH, temperature (°C) and conductivity ( $\mu\text{S.cm}^{-1}$ ) were evaluated for 16 days in the period from 8.4.2013 to 3.5.2013 every day at 8:30 and 13:00 by Hanna device. Also distilled water with activation and without was used. To determine the differences between the evaluated traits, regression analysis was used. In the evaluation of pH of the distilled water it was determined at the beginning of the experiment 6.21 (control variant) and 8.22 (variant with activating water) and at the end of the experiment 6.02 / 8.14 - respectively. The pumpkin juice pH also was determined at the start of the experiment 6.47 (control variant) and 5.00 (variant with activating juice) and at the end 6.49 / 4.11 respectively. The conductivity values of distilled water at the beginning of the experiment was 26  $\mu\text{S.cm}^{-1}$  (control variant) and 520  $\mu\text{S.cm}^{-1}$  (variant with activating water) and at the end of the

experiment after 16 days – 25  $\mu\text{S.cm}^{-1}$  / 277  $\mu\text{S.cm}^{-1}$  respectively. The conductivity values of pumpkin juice were defined from 1157  $\mu\text{S.cm}^{-1}$  (control variant) and 1584  $\mu\text{S.cm}^{-1}$  (variant with activating juice) to 1223  $\mu\text{S.cm}^{-1}$  / 1548  $\mu\text{S.cm}^{-1}$  respectively. Set values by determination coefficients ( $R^2$ ) confirmed the effect of activation of water and juice to changes in the evaluated traits.

#### Introduction

Various kinds of pumpkins are among underutilized species. They are considered as resources for the poor. People in different countries of used at regional and ancient varieties popular not only in food, but also in phytotherapy (Salke et al., 1962; Tyler et al., 2005; Kwon et al., 2007). The use of pumpkins in different parts of the document's many national diet recipes (Nidetch, 1977). The increased interest in pumpkins and their products contribute substantially new information and knowledge about the biochemical composition of biologically active substances (Koike et al., 2005). The most used are the products of pumpkin seeds (Xia et al., 2003; Hase et al., 1996). Suphakarn, Yarnnon and Ngunboonsri (1987) have determined examining the effects of pumpkin seeds on human health that pumpkin as a supplement affects the secretion of oxalic acid crystals and also influences the composition of urine. The cultivation and use of *Cucurbita pepo* var. *styriaca*, which provides seeds



without shells, has significantly expanded in recent years (Buchter - Weisbrodt, 2004). Besides seeds are also used from pumpkin pulp, which is of nutritional and herbal medicine interesting perspective rather high in pectin,  $\beta$ -carotene (Hillebrand et al., 1996), phytosterols (Murkovic et al., 2004), xanthophylls-lutein, violaxanthin,  $\beta$ -kryptoxanthin (Matus et al., 1993; Hillebrand et al., 1996), terpenoids (Shukla a Gupta, 2012; Duke, 2005), kukumarin and kukurbitacin (Metclaf a Rhodes, 1990), sterol-alfa-spinasterol (Jeong et al., 2004), avenasterol (Duke, 2005), campesterol (Tsaknis et al., 1997), cholesterol (Younis et al., 2000), zeaxantins (Muntean, 2007) and other very important substances. Ogunlesi et al. (2010) in their study determined the level of vitamin C in pumpkin leaves in the range of 129.39 – 171.29 mg.100-1kg. Leaf extract has anti-inflammatory effects. Within each species such as giant pumpkin (*Cucurbita maxima*), butternut pumpkin (*Cucurbita moschata*) and oily pumpkin (*Cucurbita pepo* L.) there are also different types of carotenoids-  $\alpha$ -C and,  $\beta$ -C is most in the giant pumpkin (Neumatu et al., 1990), butternut pumpkin (Doiioda a Sulledmath, 1986) and oily pumpkin (Granado et al., 1992).

### Material and Methods

The aim of this work is the determination of the impact of activated natural pumpkin juice with turbine vital to the stability of selected physical parameters. For the experimental purposes, the fruit of giant pumpkin (*Cucurbita maxima* L.) landraces originating from Serbia was used. The varieties used by the people of many countries in the Balkans, when they prepare to traditional food.

We got natural juice from fresh fruit with juicer. After filtration, the juice was activated with vital prototype turbine Kalyxx (variant is labeled A1). The analysed samples of juice and water have been activated by pouring through the Kalyxx device. As a control, a variant natural juice without activation was used. In both scenarios pH, temperature ( $^{\circ}\text{C}$ ) and conductivity ( $\mu\text{S.cm}^{-1}$ ) were evaluated for 16 days in the period from 8.4.2013 to 3.5.2013 every day at 8:30 and 13:00 by Hana device. At the same time, distilled water as a control variant was used. Distilled water and natural pumpkin juice were stored during the experiment in glass containers holding 250 ml. Samples were kept at all times in the laboratory without temperature control.

### Results and Discussion

In assessing pH of distilled water were determined upward trend. The value of measuring pH was 6.21 at the first day, after 16 days pH was determined as 8.22. A similar trend is observed after activation of distilled water. The values of pH were increased from 6.02 to 8.14. Course of growth, respectively, lowering the value of pH at 6 and 7 days of measurement was the same in both variants (Figure 1 and 2). Different changes of the pumpkin juice in pH were recorded (Figure 3 and 4). In controls, pH value at the beginning of the experiment is 6.47 and 5.00 is at the end. After activation pumpkin juice has the pH value of 6.49 at the beginning of the experiment and 4.11 at the end. In both variants, at the second day of measured pH value has increased to 7.29 (control) and 6.83 (A1) and at the third day pH decreased to 4.97 (control) and 4.47 (A1). Another



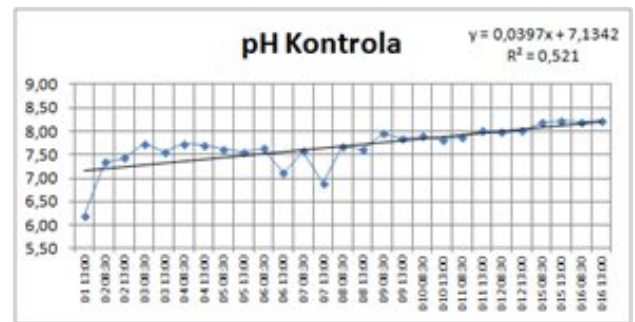
drop in pH in both scenarios was at the 6th and 7th day of the experiment to values around 3.70. The next day pH has increased again (Figure 3 and 4). These changes were probably caused by oxidation of the juice in a free environment. But other factors are not excluded.

Regression analysis and coefficient of determination  $R^2$  were used to determine the differences between the variants. The coefficient of determination compares the estimated and actual values and has a value ranging from 0 to 1. If the coefficient =1, the sample is a perfect correlation – between the estimated and actual values of y there is no difference. Where coefficient %0, it means that the regression equation is not suitable for predicting values y.

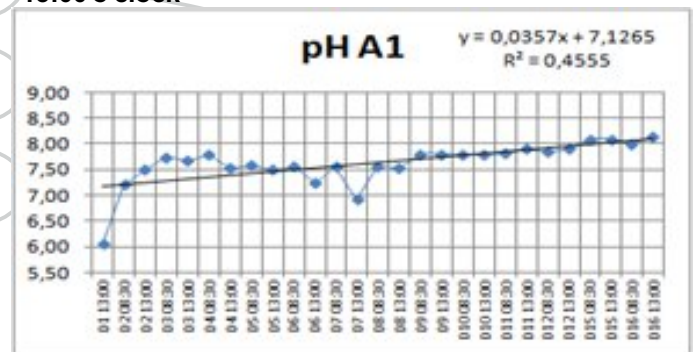
The value of the coefficient of determination for samples of water is identified as 0.52 in control variant, in the activated state as 0.45. Pumpkin juice coefficient is 0.23 and 0.47 respectively. The results indicate that activation of pumpkin juice effect on pH value.

When evaluating the conductivity of distilled water significant changes were determined. The conductivity value in control variant at the beginning of the experiment was 26  $\mu\text{S.cm}^{-1}$  and the end of the experiment 520  $\mu\text{S.cm}^{-1}$ . The conductivity value for the activated distilled water was 25  $\mu\text{S.cm}^{-1}$  at the beginning and 277  $\mu\text{S.cm}^{-1}$  at the end of the experiment. The values of the coefficient of determination indicate a significant effect of activation (0.92) compared with control variant (0.75). The conductivity value of pumpkin juice was determined as 1157  $\mu\text{S.cm}^{-1}$  in the control variant at the beginning and 1584  $\mu\text{S.cm}^{-1}$  at the end of the experiment (Figure 5). The

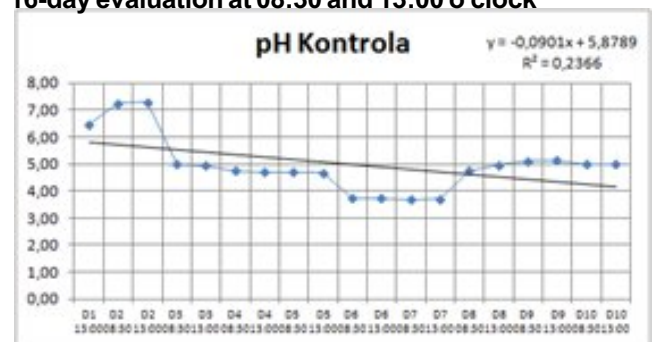
conductivity value of activated pumpkin juice was 1223  $\mu\text{S.cm}^{-1}$  at the beginning and 1548  $\mu\text{S.cm}^{-1}$  at the end of the experiment (Figure 6). The values of the coefficient of determination indicated a lower activation effect on pumpkin juice (0.94) compared with control variant (0.90).



**Figure 1 Regression analysis of changes in pH of distilled water during the 16-day evaluation at 08:30 and 13:00 o'clock**



**Figure 2 Regression analysis of changes in pH of distilled water activated with device Kalyxx during the 16-day evaluation at 08:30 and 13:00 o'clock**



**Figure 3 Regression analysis of changes in pH of natural pumpkin juice during the 16-day evaluation at 08:30 and 13:00 o'clock**





Figure 4 Regression analysis of changes in pH activated natural pumpkin juice with device Kalyxx during the 16-day evaluation at 08:30 and 13:00 o'clock

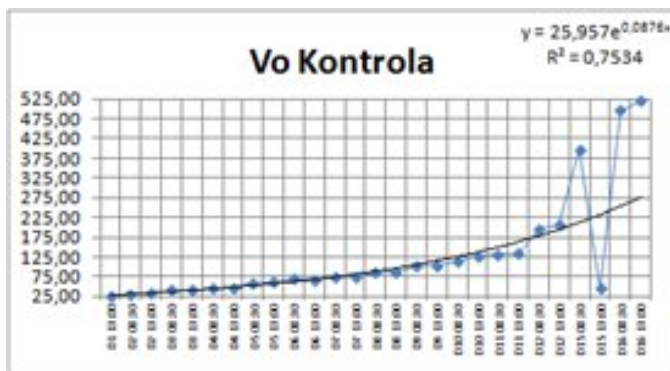


Figure 5 Regression analysis of changes in the conductivity of distilled water during the 16-day evaluation at 08:30 and 13:00 o'clock

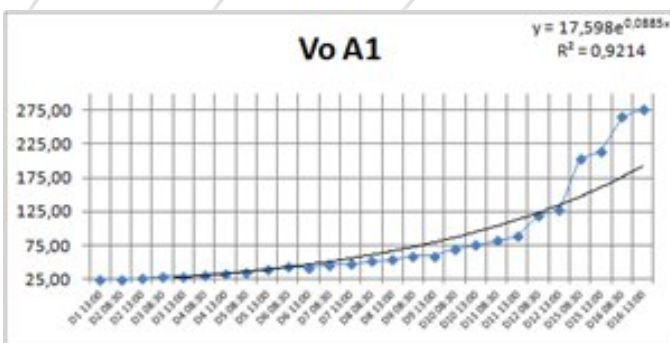


Figure 6 Regression analysis of changes in the conductivity of distilled water activated with device Kalyxx during the 16-day evaluation at 08:30 and 13:00 o'clock



Figure 7 Regression analysis of changes in the conductivity of natural pumpkin juice during the 16-day evaluation at 08:30 and 13:00 o'clock

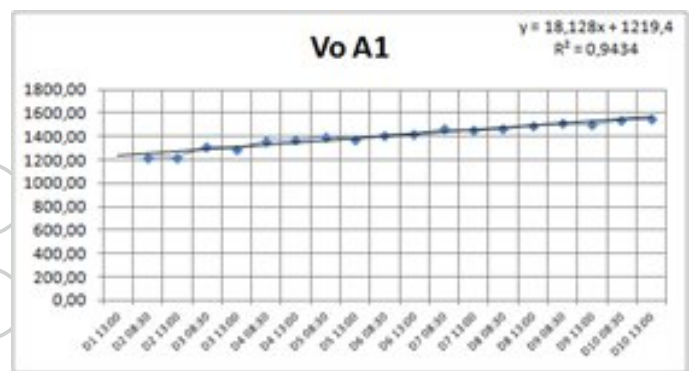


Figure 8 Regression analysis of changes in conductivity activated pumpkin juice with device Kalyxx during the 16-day evaluation at 08:30 and 13:00 o'clock

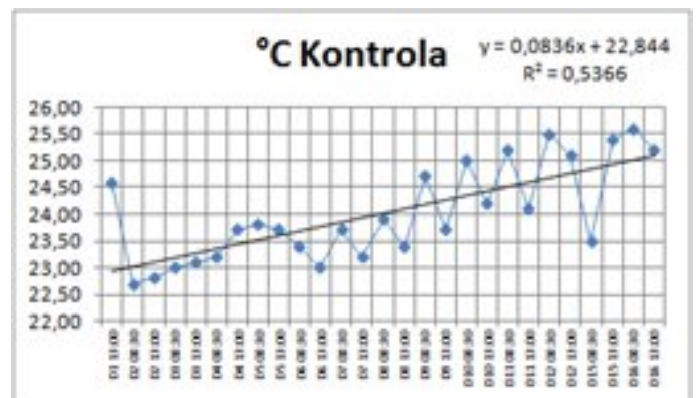
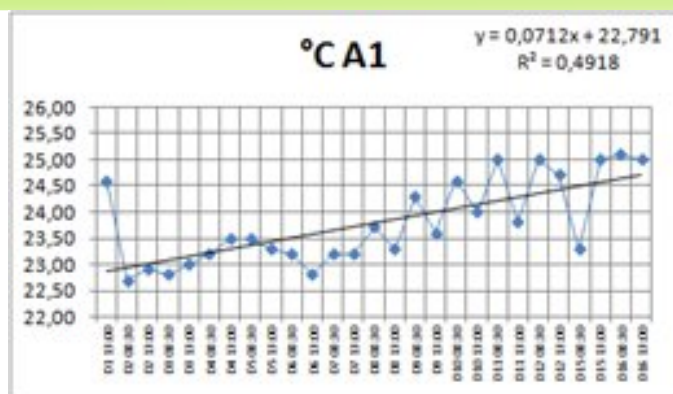
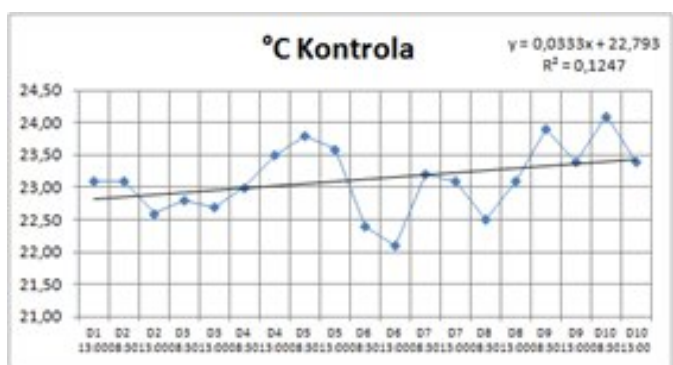


Figure 9 Regression analysis of temperature (°C) distilled water during the 16-day evaluation at 08:30 and 13 o'clock

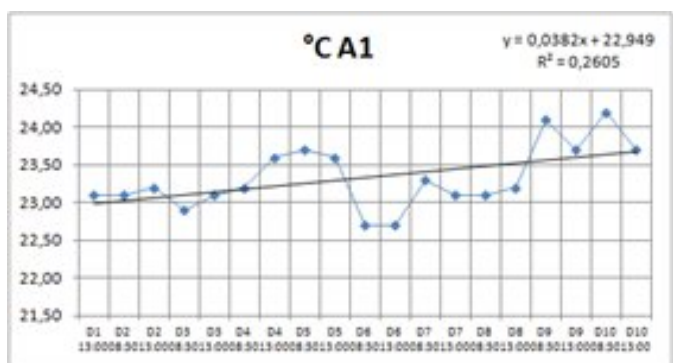




**Figure 10 Regression analysis of temperature (°C) distilled water activated with device Kalyxx during the 16-day evaluation at 08:30 and 13:00 o'clock**



**Figure 11 Regression analysis of temperature (°C) natural pumpkin juice during the 16-day evaluation at 08:30 and 13 o'clock**



**Figure 12 Regression analysis of temperature (°C) activated pumpkin juice with device Kalyxx during the 16-day evaluation at 08:30 and 13:00 o'clock**

We were carried out experiments under laboratory conditions. For this reason, changes in temperature variations related to environmental temperature. Therefore, the tendency of changes in the control variant very similar to changes in variant (Figure 9) with activated distilled water (Figure 10). The value of coefficient of determination shows on same differences specified for the control (0.53) and activated juice (0.49). Different situations were determined for the variants of pumpkin juice (Figure 11 and 12).

We tend to identify specific changes in temperature compared control and activated variants of juice with variants of distilled water. The values of the coefficient of determination indicate a lower impact of activating on the pumpkin juice (0.26) compared with control variant (0.12).

To ensure prevention and health improvement, many people return to natural resources and organic species, which were not applied agro pesticides. Such species include the pumpkin. In Slovakia, the most used seeds and unripe fruits or full technological ripeness for baking, cooking or juice. In other countries, young shoots, flowers, dried pulp are taking advantage as an ingredient in bakery products (Doymaz, 2007). In some countries the pulp is used to prepare jams, salads and confectionery products (Nawirska et al., 2009). Tamer et al. (2010) developed less carbohydrates food products suitable for diabetics and people with overweight to obese. The cultivation and use extends of oily pumpkin with the seeds without seed coat, especially for sheet quality oil (Brindza et al. 2011).

Pumpkin fruits are also used for juices that



people consume in a natural or heat-treated condition (Doymaz, 2007). Comments are not accurate enough to be used. What is fuller and better for the consumer? Eating fruits in a modified state, which contains all the nutritious ingredients including mineral components and fiber or just juice with soluble substances? Juice selected varieties of pumpkins very comprehensively analyzed Kreck et al. (2006). The team confirmed the high nutritional value of pumpkin juice with respect to carotenoids and other important components. To utilize high nutritional value of food is appropriate to use it in their natural state. Stabilization of food preservation, especially by adding ascorbic acid does not contribute to the conservation of nutrition (Young and Lowe, 2001; Choi et al, 2002; Kebede et al, 1998 ).

Another object of study in the work is activation of water and juices. This issue is not new. Activation of water and its beneficial effects are known for several centuries. Evidenced by the many activators processed with the use of various physical phenomena such as magnetism, laser, electromagnetic fields, low-frequency mechanical vibration (Britova, 1998; Akopyan, 2005; Shchipunov, 2006). Their applications confirmed impact on many physic-chemical properties of water.

In our experiment, vital turbine was used. It uses known galvanic effect. Applying vital turbines for distilled water and natural juices, the effect of changes in pH and conductivity were confirmed. Our results correspond with the results of other authors, although used other physical phenomena in the experiments. Britova (1998)

were able to study the impact of high electronic fields on physic-chemical properties of distilled water to increase the electrical conductivity, pH and oxidation-reduction potential (ORP). Changes in the properties of water depend on the frequency and duration of influence of the electromagnetic field.

Akopyan (2005) found in the study of individual applications helium-neon laser and magnetic field, and mutual combination of the physic-chemical properties of water made from tap water Novgorod and distilled water only an insignificant increase in pH, while oxidation-reduction potential ORP remained unchanged. Akopyan (2005) studied the effect of simultaneously combined action of a weak magnetic field, electromagnetic field and low frequency mechanical vibrations on the conductivity of distilled water. Conductivity were decreased compared to control variant in the experiments. Shchipunov (2008) verified experimentally general knowledge, and pH of the water is dependent on its temperature. In the experiments found that the temperature of the water after the application laser effect is unchanged (<http://www.terapia.kiev.ua/>).

Despite knowledge by the question remains, what processes are activating water or juice implemented? Many authors explain this by increasing the internal energy of water or juice or energy-information potential (Schwenk, 1996; Zacepina, 1984; Zenina and Tjaglov, 1994). In that context, it only remains to prove a single of these phenomena.

The issue of improving the quality of water, juices and other liquid is the object of solutions to



many research institutions. This is mainly due to excessive pollution, water and hence the deterioration of the health status of the population. After obtaining a sufficient amount of knowledge is not excluded, that will be actively used for these purposes and activation of water various methods.

### Conclusions

In the experiments the verification of the effect on activating vital turbine distilled water and pumpkin juice were ensured. Effect of activation was assessed by the changes in pH and conductivity. Effect of activation was confirmed. Solving the problem is essential for the activation process knowledge for improving the quality of food.

Doc. Ing. Ján Brindza, Csc.,  
Ing. Hana Oleárová  
Slovak University of Agriculture in Nitra, Slovakia

Ing. František Pancurák  
MERCI\_M, s.r.o, Prešov, Slovakia

Michail V. Kurik, doktor fyzikálnych vied  
Human Ecology Institute, Kyiv, Ukraine

### Acknowledgment

This publication was developed on the framework of the research project "Promoting innovation technology speciality organic food products for people eating healthily" ITMS 26220220115, on the basis of Operational Programme Research and Development financed by the European Regional Development Fund in terms of centers of excellence conservation and management of agricultural

biodiversity in the Faculty of Agrobiology and Food resources Slovak University of Agriculture.

### Bibliography

1. BRINDZA, J.-BALÁTOVÁ, Z.-NÔŽKOVÁ, J. 2011. Proteins content and quality in selected plant parts of oily squash (*Cucurbita pepo* var. *Styriaca*). In *Potravinárstvo*, vol. 5, 2011, special issue, p. 249-253. ISSN 1338-0230.
2. BRITOVA, A. A. – ADAMKO, I. V. – BACHURINA, V. L. 1998. Water activation by laser radiation, magnetic field, and their combination. In *Vestn. Vologod. Univ.* 1998, no. 7, pp. 10-15.
3. BUCHTER-WESBRODT, H. 2004. *Genuss-Frucht- Kürbis*. Leopoldsdorf : Österr. Agrarverl., 2004, pp. 144, ISBN 3-7040-1992-5.
4. DOIIODE, SD. - SULLEDMATH, UV. 1986. Genetic variability and correlation studies in pumpkin (*Cucurbita moschata* Poir.) Mysore: *J Agr Sci*, vol. 20, 1986, pp. 59-61.
5. DOYMAZ, I. 2007. The kinetics of forced convective air-drying of pumpkin slices. In *Journal of Food Engineering*. 2007, vol 79, no. 1, pp. 243-248.
6. DUKE, J. 2005. Dr. Duke's Phytochemical and Ethnobotanical Databases. [online] 2005. [cit. 2012-06-03]. Dostupné na internete: <<http://www.biologie.uni-hamburg.de/b-online/ibc99/dr-duke/>>.
7. GRANADO, F. et al. 1992. Carotenoid composition in raw and cooked Spanish vegetables. *J Agr Food Chem*, vol. 40, 1992, pp. 2135-2140.



8. HASE, K. et al. 1996. Hepatoprotective Effects of Traditional Medicines. Isolation of the Active Constituent from Seeds of *Celosia argentea*, *Phytother. Res.*, vol. 10, 1996, pp. 387–392.
9. HILLEBRAND, A. et al. 1996. Variability of fatty acid content in pumpkin seeds (*Cucurbita pepo* L.). In *Zeitschrift für Lebensmitteluntersuchung und forschung a*, vol 203, 1996, no. 3, pp. 216-219.
10. CHOI, M. H. – KIM, G. H. – LEE, H. S. 2002. Effects of ascorbic acid retention on juice color and pigment stability in blood orange (*Citrus sinensis*) juice during refrigerated storage. In *Food Research International*, 2002, vol. 35, pp. 753–759.
11. JEONG, S. I. et al. 2004.  $\alpha$ -spinasterol isolated from the root of *Phytolacca americana* and its pharmacological property on diabetic nephropathy. In *Thieme eJournal*, vol. 70, 2004, no. 8, pp. 736-739.
12. KEBEDE, E. – MANNHEIM, C. H. – MILTZ, J. 1998. Ascorbic acid retention in a model food packed in barrier plastic trays and in cans, In *LWT – Food Science and Technology*, 1998, vol. 31, pp. 33–37.
13. KOIKE, K. et al. 2005. New Phenolic Glycosides from the Seeds of *Cucurbita moschata*, *Chem. Pharm. Bull. Tokyo*, vol. 53, 2005, pp. 225–228.
14. KRECK, M. – KÜRBEL, P. – LUDWIG, M. – PASCHOLD, P. J. – DIETRICH, H. 2006. Identification and quantification of carotenoids in pumpkin cultivars (*Cucurbita maxima* L.) and their juices by liquid chromatography with ultraviolet-diode array detection. In *Journal of Applied Botany and Food Quality*. 2006, vol. 80, pp. 93-99.
15. KWON, YK. et al. 2007. Health Benefits of Traditional Corn, Beans, and Pumpkin: In Vitro Studies for Hyperglycemia and Hypertension Management. In *Journal of Medicinal Food*, vol. 10, 2007, no. 2, pp.266-275.
16. MATUS et al. 1993. Carotenoid composition of yellow pepper during ripening. Isolation of  $\beta$ -cryptoxanthin 5,6 epoxide. In *Journal of Agricultural Food Chemistry*, 1993, pp. 1907-1914
17. METCLAF, R.L. - RHODES, A.M. Co-evolution of the Cucurbitaceae and Luperini (Coleoptera: Chrysomelidae): basic and apply aspect. In: Bates, D.M., Robinson, R.W., Jeffrey, C. *Biology and utilization of the Cucurbitaceae*. Ithaca and London : Cornell University, 1990, pp.167-182.
18. MURKOVIC, M. et al. 2004. Changes in chemical composition of pumpkin seeds during the roasting for production of pumpkin seed oil (Part 1: non-volatile compounds). In *Food Chemistry*, vol. 84, 2004, no. 3, pp. 359-365.
19. MUNTEAN, E. et al. 2007. Small-scale batch technology for production of a natural food dye from green algae. In *Food technology Romania: The Annals of the Univerzity Dunarea de Jos of Galati*, 2007, pp. 56-60.
20. NAWIRSKA, A. – FIGIEL, A. – KUCHARSKA, A. Z. – SOKOL-LETOWSKA, A. – BIESIADA, A. 2009. Drying kinetics and quality parameters of pumpkin slices dehydrated using different methods. In *Journal of Food Engineering*. 2009, vol. 94, no. 1, pp. 14-20.
21. NEUMATU, G. - STANESCU, U. - TABACARU, C. 1990. Phytochemical researches on higher plants. 3. Carotenoid and chlorophyll content





in Cucurbita species and varieties. Stud Cercet Biochim, vol. 33, 1990, pp111-116.

22. NIDETCH, J. 1977. Weight Watchers international cookbook. New York: New American Library, 1977. 388 p, ISBN 04-530-10040.

23. OGUNLESI, M. et al. 2010. Vitamin C Contents of Tropical Vegetables and Foods determined by Voltammetric and Totrimetric Methods and Their Relevance to the Medicinal Uses of the plants. In Internatinal Journal of Electrochemical Science, vol. 5, 2010, p. 105-115.

24. SALKE, J. at al. 1962. Intensive Immunization Programs Y4in8/4:Im6 - Hearings Before the Committee on Interstate and Foreign Commerce, House of Representatives, 87th Congress, 2nd Session on H.R. 10541, Washington DC: US Government Printing Office, 1962. pp. 94-112.

25. SHCHIPUNOV, Y. – SHIPUNOVA, N. 2008. Regulation of silica morphology by proteins serving as a template for mineralization. In Colloids and Surfaces B: Bioonterfaces. 2008, vol 63, no. 1, pp. 7-11.

26. SHUKLA, S. – Gupta, S. 2012. Current status and future prospects of nutraceuticals in prostate cancer. In Nutraceuticals and cancer. 2012, pp. 77-109.

27. SUPHAKARN, V. S.-YARNNON, C.-NGUNBOONSRI, P. 1987. The effect of pimkin seeds on oxalcrystalluria and urinary compositions of children in hyperendemic area. In Am. J. Clin. Nutr., vol. 45, 1987, no. 1, p. 115-121.

28. TAMER, C. E. – INCEDAYI, B. – PARSEKER, S. 2010. Evaluation of several Quality Criteria of Low Calorie Pumpkin Dessert. In Not. Bot. Hort. Agrobot.

2010, vol. 38, no. 1, pp. 76-80.

29. TSAKNIS, J. - LALAS, S. - LAZOS, E. S. 1997. Characterization of crude and purified pumpkin seed oil. Grasas Aceites, vol. 48, 1997, pp. 267–272.

30. TYLER, E. V. 2005. Plant drugs in the twenty-first century. In Biomedicinal and life science. 2005, vol. 40, no. 3, pp. 279-288.

31. XIA, H.C. et al. 2003. Purification and Characterization of Moschatin, a Novel Type I Ribosomeinactivating Protein from the Mature Seeds of Pumpkin (Cucurbita moschata), and Preparation of Its Immunotoxin Against Human Melanoma Cells, Cell Res., vol. 13, 2003, pp. 369–374.

32. YONIS, Y. M. H - GHURMAY, S. - AL-SHIRHY, S. S. 2000. African Cucurbita pepo L.: properties of seed and variability in fatty acid composition of seed oil. In Phytochemistry, vol. 54, 2000, no. 1, pp. 71-75.

33. YOUNG, A. J. – LOWE, G. M. 2001. Antioxidant and prooxidant properties of carotenoids. In Archives of Biochemistry and Biophysics, 2001, vol. 385, no. 1, pp. 20–27.

34. С. В. Зенин, Б. В. Тяглов, "Гидрофобная модель структуры ассоциатов молекул воды", Ж. Физ. Хим, 68(4), 636-641 (1994).

35. Dr. Schwenk, Sensitive Chaos, Cygnus-books (1996).

36. Зацепина, Структура и свойства воды. Изд. МГУ, Москва (1984).



## Advertisement

# dōTERRA®

## Independent Product Consultant

**CPTG** Certified Pure Therapeutic Grade®

### Essential Oils

"Pure essential oils are appealing to a wider audience because of their potency, safety, and affordability. CPTG Certified Pure Therapeutic Grade® essential oils are highly regarded for their ability to address everything from serious infections to everyday health challenges,"

said Dr. David K. Hill, doTERRA's Chief Medical Advisor

Essential oils doTERRA – for connecting traditional and alternative medicine, is committed to sharing the life-enhancing benefits of CPTG Certified Pure Therapeutic Grade® essential oils and essential oil-enhanced wellness products with the world.



For details, please visit [www.doterra.com](http://www.doterra.com)  
or dial +421 907 718 958 or +421 948 335 011

Editorial office is not responsible for the content of advertisements.



## Geochemical Environment and Human Health

Doc. RNDr. Miloslav Khun, CSc.

### Abstract

The study of science history confirmed that with the problem of geographical factors in the diseases widespreading had been already engaging Hippocrates and some of his contemporaries. At research of various diseases widespreading from the geographical point of view were searched connections especially with climatic or topographic factors. To responsible solution of this causality is unconditional necessary exploit the geochemical knowledges (e. g. the distribution and forms of chemical elements in environment, their participation in geological and geochemical processes and so on). Here is then opened the space for the independent scientific discipline by connection of medicine and geochemistry – medical geochemistry. In this contribution are briefly presented some confirmed or expected impacts of geochemical environment to human health.

**Keywords:** geochemical environment and human, trace elements, morbidity, iodine deficiency

Geographical factors in widespreading of some diseases are known practically since the time medicine as science exists. The study of science history showed tha Hippocrates and some their contemporaries were dealing with this problem

before more then two thousand years. Lately, the old Chinesiens at 4th century AD had known the environmental impacts to human body, especially in the connection with occurence of endemic goitre (Lag, 1992). Certainly, these essays from the antiquity didn't have significant impact to further evolution of this problem. This would be responsible developing at the time, when basic sciences as chemistry, physiology, microbiology and pathology reach liable level.

Despite fact medicine known that sickness rate on some diseases is in various world areas variable, medical geography (some authors use also words connection „geographical medicine“) as science rised practically in the first decades of past century. At the research of various diseases widespreading from the geographical point of view were searched connections especially with climatic and topographic factors. Classical example so oriented research is e.g. well-know dependence between specific climatic factors and occurrence of malaria and swamp fever. We can show as one example of research from Slovakia the tick encephalitis widespreading on western Slovakia region in relationship to selected geographical parameters (Krajčír, 1989). It is necessary to say that the connection of medicine and geography can't explain the causality between considerable geographical differences and the widespreading of some diseases. To responsible solution of this dependence is unconditional



necessary to exploit the geochemical experiences (e.g. distribution and forms of chemical elements behaviour, their migration and participation at geochemical processes and so on). Here is then opening of scope for independent scientific discipline by connection of medicine and geochemistry – medical geochemistry.

Chemical composition of organism is to certain measure a reflection of external environment. When we allow for intake from food, receipt of chemical elements and substances from environment is depending not only on the character of organism, but many times especially on the contents of certain elements and global environment character, that is on the conditions of geochemical environment. This environment is not homogenous – trace elements as well macroelements (Ca, Mg, Na, K, P, S and so on) are not uniformly widespread in various regions. It depends from geological history of region, on character of chemical composition of soil substratum and features of soil-forming processes, on the chemical character of waters etc. The result are the regions which are different from „normal“ due to increased or decreased content of some element or elements respectively (Garrett, 2005). Natural environment is on majority of earth surface noticeable damaged. Past decades are characterized with start of manmade environment due to intensive human activity. Present-day environment is symptomatic with general damaging of geochemical equilibrium. The processes of adaptation lasted millions of years. In sharp contrast to these slow

processes stand today's vehement and often fundamental changes caused by the modern human activity, well quantitative and qualitative extreme changes which reside in environment enrichment with new chemical and physical factors. Many from this factors have distinct and sometimes harmful biological effects. By this fact was seriously damaged long-term formed geochemical equilibrium of environment and organisms. At the same time is man and all organisms without exception exposed to influence of new dangerous agents. Against these the man didn't have never natural defensive mater and he also hasn't sufficient time to their creation by the natural or manmade processes. Modern human activity so create environment, which is secondary enriched and vice versa depleted with some components. In various world regions were recorded disturbing data, which implicate that violation of geochemical equilibrium reach in some cases such high degree that it can be originator of inhabitant endemic poisoning. Due this reason in many countries were created research teams dealing with environmental topic. National conferences are held not only in such countries as USA, Great Britain, Russia but also in countries where damaging degree of environment is not so high yet, i.g. Canada (Žýka, 1972). For example in the Great Britain, Netherland and USA it was discovered that stomach cancer mortality increase with decreasing content of dissolved mineral substances in drinking water (respectively with their hardness caused by  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$ ). Soft water of sulphate type in Japan are connected





geographically with high mortality on apoplexy, respectively with above the average on all heart diseases. In USA is occurrence of high mortality rate on atherosclerotic heart diseases including coronary vascular system diseases connected with regions supported with soft drinking water of low  $\text{Ca}^{2+}$ ,  $\text{Mg}^{2+}$  and  $\text{HCO}_3^-$  content. In Great Britain (Wales), Sweden and other was recovered that mortality on cardiovascular diseases increases with downward hardness used drinking waters, especially with fall of  $\text{Ca}^{2+}$ . Anxiety cause recorded significant connection between child mortality and drinking water hardness as well between water hardness and pregnancy and postneonatal mortality in Great Britain (England). On the other side it's necessary to admit that these relationships which are showing as direct are in the reality indirect. Well, the properties of drinking water indicating to connection with diseases widespread are in the reality only an indicator of geochemical character of environment – true reason of high mortality, respectively sickness rate wasn't discovered. This can't change the fact, that chemical composition of water is the most significant criterion of environment quality and at the same time one important factor affecting human health. Even several informations indicate that the most suitable environment for man is the sea water – optimal level of micronutrients content corresponds to the contents level and mutual ratios of trace elements in sea water.

It can be stated, that the relationships between geochemical environments and the man are most close then it is predicted in general. Sick status in

man is showing at the time, when is damaged an equilibrium between organism and external environment factors. This damage of equilibrium can happen as influence of endogenous factors (organism status of man) as exogenous ones (influence of environment and occupational places). The influence of geochemical environment to man organism is showed before his birth, some data indicate that geochemical environment character to certain measure decides together about physical and mental status of adult man even before his birth.

Slovakia with its complicated geological structure and especially with widespread mine activities from the Middle Ages can serve as example many geogenic/ anthropogenic influences of environment to human health. Probably the first so oriented research was extensive survey on sickness from iodine deficit, which mountainous and continental Slovakia was always injured (Podoba, 1962). In the years of 1949-1953 were tested 160 000 inhabitants of both sex and various age groups in 602 municipalities of middle dimensions. These municipalities were uniformly arranged on all territory of Slovakia and presented more than 5 % population of that time. On the basis of these tests were constructed maps of endemic goitre occurrence and separated 4 regions where this disease was stated at 90 % of women and 50 % of men. Three from these regions presented territory with geogenic deficit of iodine (igneous and volcanic rocks – Biele Karpaty Mts., Štiavnické vrchy Mts. and Kysuce region), the fourth region was a typical example of iodine flood out from soil



in lowlands often inundated by floods (region of Žitný ostrov). It is necessary to note, that also in other Slovakia regions was the occurrence of goitre relatively high – for women 5-7 % and for men 30-0 %. In the most affected regions wasn't unusual occurrence of cretins. On the basis of this research were proposed to add iodine into kitchen salt at multitude of 25 mg potassium monoiodide (KI) into 1 kilogram of salt. This step was leading to resounding fall of goitre occurrence, especially by adolescents. Probably after six years from iodination of kitchen salt fallen the goitre occurrence in adolescent group at 50 % and cretinism is almost zero. In the years of 1989-1991 was done research on goitre occurrence in group of children of 6-18 years. Interesting is the result that inhabitants from the most in past by goitre affected regions pitch on this disease the best (Podoba, 1995).

On the other side with the excess of chemical element in the environment (in this case fluorine) were dealing i.g. Khun et al. (2000). At this time projects focused to environment problems to human health in Slovakia solve Dionýz Štúr State Geological Survey in Bratislava (i.g. Rapant et al., 1998, project Geohealth). Most recently The Medical Society of Natural Medicine in Bratislava devote great attention just such interdisciplinary studies of environment relation to widespreading some diseases and is open for all experts from not medicine spheres who can contribute with their experiences and professionalism to given problems.

## Conclusion

It can be stated that various sickly conditions are characterized at all with specific changes of trace element concentrations in the blood and organs of human body. Finding of this changes and above all detecting of causes can have in some cases indubitable essential importance for new ways in the prevention and healing of diseases.

Dr. Miloslav Khun, PhD

Associate profesor

Department of Geochemistry

Faculty of Science

Comenius University Bratislava

khun@fns.uniba.sk

## References

1. Garrett, R., G., 2005: Natural Distribution and Abundance of Elements. In: Selinus, O. et al. (eds.): Essential of Medical Geology. Impact of the Natural Environment on Public Health. Elsevier, Amsterdam, 17-41
2. Khun, M. – Jurkovič, L. – Urminská, J., 2000: Medical Geochemistry: A Brief Outline of the Problems and Practical Application in the Region of Žiarska kotlina Basin. Slovak Geol. Mag., 6, 17-26
3. Krajčír, A., 1989: Rozšírenie kliešťovej encefalitídy na západnom Slovensku vo vzťahu k vybraným geografickým prvkom. Geog. Čas., 41, 48-70

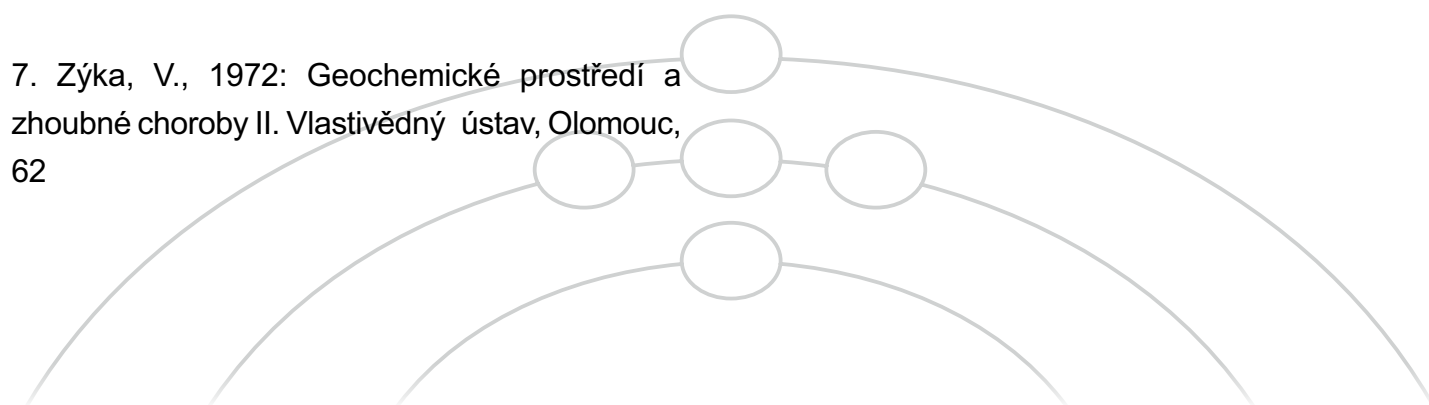


4. Lag, J., 1992: From theoretical investigations on soil formation to applicable results for plant production and geomedicine. Postepy Nauk Rolniczych, Polska Akad. Nauk, Wydział Nauk Rolniczych i Lesnych, 4/239, 53-65

5. Podoba, J., 1962: Endemická struma na Slovensku. Vyd. SAV, Bratislava, 187

6. Podoba, J. – Hnilica, P. – Srbecký, M. – Podobová, M., 1995: Účinnosť jódovej profylaxie endemickej strumy na Slovensku z hľadiska fyzikálneho a ultrasonografického vyšetrenia štítnej žľazy. Bratisl. Lek. Listy, 96, 11, 622-626

7. Zýka, V., 1972: Geochemické prostředí a zhoubné choroby II. Vlastivědný ústav, Olomouc, 62





## Acupuncture and Natural Medicine Instructions for Authors

Acupuncture and Natural Medicine is an e-magazine of Medical Society of Natural Medicine (MSNM). It's main scope is the study of pathological changes in humans and the environmental and social influences on people from the standpoint of acupuncture. It publishes articles about acupuncture and other interdisciplinary fields involved.

The publisher enables the author to publish his or her unpublished works. Pursuant to provisions of Act no. 618/2003 Coll. (Copyright Act), the author waives his or her right to equitable compensation for such manuscript. The publisher does not return unsolicited contributions. The publisher sends an electronic contract to authors of studies.

E-magazine Acupuncture and Natural Medicine publishes 4 different types of contributions:

1. **studies** (3 standard pages and above- 1230 words) - original scientific work based on fundamental research
2. **surveys** (3 standard pages and above- 1230 words)- regarding current issues and problems in acupuncture and other interdisciplinary fields, informative articles and discussion
3. **reviews**- short informative reviews of up to 1 standard page
4. **reports** on scientific events – up to 10 lines, the title constitutes a part of the text

### The form of studies and surveys:

- **Basic format:** MS Word, font Times New Roman, font size 12, double spaced, unaligned on the right edge, paragraph 5 strokes from the left, aligned to the left, no page numbering, refrain from word division;
- **The first page** contains the name of the study, the author's name and institution, abstract in Slovak language, respectively, in the language of the paper, max. 600 symbols (including spaces), Times New Roman font type with font size 11 points, 4-6 key words, phrases;
- **A summary** in English language below the study shall be present, approximately 10 lines (600 symbols including spaces) in lengths, including the author's name and address, or e-mail address;
- **Citations:** kindly include citations of less than 4 lines in double quotation marks inline, quotes exceeding 4 lines shall be divided into visually separate short paragraph absent of quotation marks, 5 strokes from the left, using Times New Roman font type size 11 points;
- For citation within citation, single quotes shall be used;
- Short bibliographic reference styled as (Bakoš 1966, 115) following a citation shall be used;
- citations originally in foreign language authentic and translated (inline or in the end note);

- Insert notes using MS Word feature (endnotes) to the very end of the text. Comments should be minimalistic and include information that cannot be written directly to the text;.
- **Bibliography** is mandatory, for formatting please kindly see examples.

### **Bibliography: (examples)**

#### Monographies:

Bakoš, M.: *Vývin slovenského verša od školy štúrovej*, 3. vyd. Bratislava: VSAV, 1966.

If the citation is not from the original edition, a year of original edition should be stated:

Kundera, M.: *Žert*. (1969). Praha: Orbis, 2005.

If the citation is from a translated work, the original title and the year of its original edition should be stated:

Kristeva, J.: *Jazyk lásky* (La Revolution du langage poetique, Histories d'amour, 1974, 1983). Prel. J. Fulka. Praha: One Woman Press, 2004.

#### Almanacs:

Šišmišová, P. (ed.): *Translatologické štúdie. Teória, história a prax umeleckého prekladu v románskych krajinách*. Bratislava: Anapress, 2010.

Páleníková, J.— Šišmišová, P. (ed.): *Translatologické reflexie*. Bratislava: Anapress, 2010.

#### Contributions in a monograph or almanac:

Pašteková, S.: *Premeny estetického kánonu a čitateľská pamäť*. In Pašteková, S. — Podmaková, D. (ed.) *Kontinuita a diskontinuita vývinového procesu poézie, prózy a drámy. Premeny estetického kánonu. Koncepcie literárnych dejín*. Bratislava: Veda, s. 116-122.

#### Magazines and periodical press:

Dvořáková, A. – Žiaranová, R.: *Utrpenie prekladateľa z druhej ruky*. In *Revue svetovej literatúry*, roč. 20, 1984, č. 4, s. 95

Topol, J.: *Prokletí nechtěných dětí*. In *Lidové Noviny*, 10.4.2006, s. 6.

#### Citations of online publications:

Nouss, A.: *Texte et traduction. Du sacre chez Jacques Derrida*. <[http://www.infoamerica.org/documentos\\_pdf/derrida03.pdf](http://www.infoamerica.org/documentos_pdf/derrida03.pdf)> [22.11.2010].

Tkačíková, D.: *Když se řekne digitální knihovna...* In *Ikaros* [online]. 8.3.1999. <[http://ikaros.ff.cuni.cz/ikaros/1999/c08/usti/usti\\_tkacikova.htm](http://ikaros.ff.cuni.cz/ikaros/1999/c08/usti/usti_tkacikova.htm)>. [6.10.2000].





## FYZIOTERAPEUTICKÝ SYSTÉM TRANSKUTÁNEJ ELEKTRICKEJ NERVOVEJ STIMULÁCIE (TENS)

Princíp liečby prístrojom TENS Dm18107 spočíva v stimulácii nervu a svalu striedavým elektrickým prúdom rôznej frekvencie a priebehu. Systém je vhodný na podpornú fyzikálnu terapiu rôznych neurologických, ortopedických, interných a iných ochorení sprevádzaných bolesťou a zvýšeným alebo zníženým svalovým napätím. Analgetický účinok liečby je vysvetliteľný ovplyvnením vedenia vnímania algického podnetu (vrátková teória bolesti podľa Meltzaka a Walla), myorelaxačný účinok spočíva v podobnom princípe ako postizometrická relaxácia a tonizujúci vplyv je založený na priamej elektrickej stimulácii periférneho nervu.



Aké sú výhody?

- tlmí bolesť tam, kde iná forma tlmenia bolesti je kontraindikovaná
- možnosť aplikácie „kdekoľvek a kedykoľvek“
- odborná asistencia nie je potrebná

prim. Prof. MUDr. M. Kováč, CSc.  
neurologické odd. NsP, Nové Zámky

## SOLNÁ FAJKA – jednoduchý suchý inhalátor

Denným 15-20 minútovým používaním Solnej fajky môžeme priaznivo ovplyvniť:

- alergiu dýchacích ciest
- astmu
- nádchu
- zápal dutín tváre a nosa
- podráždenie dýchacích ciest zapríčinené fajčením



Choroby dýchacích ciest sú v súčasnosti na poprednom mieste výskytu v detskej i dospeljej populácii. Ide o značný nárast alergických ochorení – alergická nádcha, bronchiálna astma, chronická obštrukčná choroba pľúc a iné. Sprievodným znakom týchto ochorení v dôsledku zápalu je zvýšená tvorba hlienov, sťažené dýchanie, častejšie záchvaty kašľa, dýchavice. Na uľahčenie expektorácie hlienov okrem medikamentózneho liečby pomáha aj Solná fajka (pre deti Solný sloník). Najčastejšou indikáciou tejto zdravotnej pomôcky, ktorú som indikovala, boli pacienti s častými sinusitídami, exacerbovanými bronchitídami, bronchiálnou astmou, syndrómami dráždivého kašľa, inhaláciou škodlivých látok, tiež pacienti s fajčiarskou bronchitídou.



MUDr. L. Frajtová  
Ambulancia TaPCH, Prešov

### Výrobky na slovenský trh dodáva:

VitaFit spol. s r.o.

Kontakt:

00421 905 448 715 alebo 00421 2 6241 3212

[www.vitaFit.sk](http://www.vitaFit.sk), [www.epredaj.com](http://www.epredaj.com)

## LIEČIVÁ MEĎ

Meď je veľmi dôležitý stopový prvok. Potrebujú ju k svojej aktivite mnohé enzýmy, napríklad: lyzoxidáza, tyrozináza, cytochrómoxidáza, dopamín –b- hydroxyláza, superoxid – dismutáza, aminooxidáza. Do organizmu sa meď dostáva stravou, môže sa však vstrebať aj cez pokožku. Textilie s obsahom medi pomáhajú znižovať deficit medi v organizme – sú prostriedkom doplnkovej liečby niektorých ochorení.

Ďalšie účinky medi:

- . významnú úlohu zohráva pri zdravej tvorbe kostí, chrupavky, pokožky a kolagénu
- . ničí baktérie, vírusy a zárodky hubových infekcií
- . podporuje krvný obeh
- . zabraňuje vzniku kandidóz
- . urýchľuje regeneráciu organizmu po úrazoch, operáciách a zlomeninách.

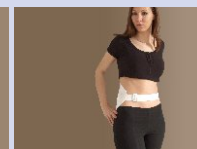
MUDr. J. Lóránth, Maďarsko

**Čelenka s obsahom medi** – zmierňuje bolesti hlavy, odporúča sa používať ju aj proti migréne. Pri bolestiach hlavy ju možno priložiť okolo krku – uvoľňuje kŕčovitosť svalov krku a podporuje normalizáciu krvného obehu v mozgu. Rovnako pomáha aj pri regenerácii „zlezaných“ alebo prechladnutých svalov krku.



**Pás na zápästie s obsahom medi** – odporúča sa nosiť ho pri bolestiach zápästia (presilenie napr. pri práci s počítačom), ďalej pri chorobách, ktoré vznikajú z nedostatku medi v organizme (málokrvnosť, osteoporóza, reumatické bolesti, Menkesov syndróm).

**Šatka s obsahom medi** – odporúča sa pri bolestiach krčnej chrbtice, obmedzenej hybnosti krku a pliec.



**Posteľná plachta s obsahom medi** – podporuje zdravý, uvoľnený spánok. Textilná s obsahom medi odráža vysokofrekvenčnú radiáciu.

**Kontraindikácie:** Výrobky sa nesmú používať pri alergii na meď, pri Wilsonovej chorobe a pri zápale kĺbov!

## PONOŽKY SO STRIEBROM

Tkanina s obsahom striebra je výborným vodičom tepla a elektriny, čím bráni statickému nabíjaniu. Striebro obsiahnuté v ponožkách vo forme postriebreného vlákna ničí baktérie a huby, ktoré vyvolávajú nepríjemný pach spotených nôh. Udržiava nohy v teple, vytvára ideálne prostredie pre kĺby a celkovo zvyšuje fyzický a psychický stav.

Ničivý účinok striebra na huby a baktérie bráni aj ich usídleniu vo vložke topánok.



# Acupuncture and Natural Medicine

