

Chapter 1

DRUG-FREE METHODS OF ALLERGIC DISEASE MANAGEMENT

Acupuncture

Acupuncture is the most ancient medicine methodology used in China and other oriental countries in parallel with medicinal and physical therapy, as well as common gymnastics. It is really difficult to evaluate the extent, to which this technique is efficient, as well as its availability and safety of. Simplicity of this method makes it feasible to apply it on the broadest scale and in any condition.

From year to year the acupuncture expands out all over the world. Within the clinical allergology practice, acupuncture was first used in 1982 and since then it is applied in treating any forms of allergic diseases in children and adults. I do suppose that wide introduction of the acupuncture technique and therapy method of a range of allergic diseases treatment may be appreciable and advantageous to a world of health care professionals of different specialties.

Brief history on acupuncture

There is no precise data on the acupuncture origin in oriental countries, in particular in China and Japan.

Legendary Huangdi is believed to be the parent of acupuncture school who is ascribed to compile the well-known canon *Huangdi Neijing* (The Yellow Emperor's Inner Canon) dated approximately VIII century BCE. It is stated in the *Huangdi Neijing Canon* that "At present diseases are treated in two ways: intrinsic (medication administration) и extrinsic (application of stone needles)". There are two opinions to assume that use of acupuncture dates back far longer than the date when this classic canon was written. Acupuncture as a therapy is mentioned in the recognized work *Shennong Ben Cao Jing* (The Divine Husbandman's Classic of the Materia Medica), dated at about 200 CE. Later on, in VI century B.C.E. Ben Cao reached high proficiency in medical practice. Being one of

the founders of the pulse doctrine, Ben Cao was the widely recognized therapist, and the skillful surgeon. He performed surgical operations using the specific anesthesia based on the unique drink the recipe of which was lost. His judgments were interesting to exert attention that the origin of diseases beyond cure lies in messy lifeway, pursuit of money at the expense of the health, being disparaging to nutrition and clothing, asthenia, immobility of the sick person, unreasonable and erroneous administration of medicine and addressing to sacrificers in cases when the sick person needs medical aid from health care professionals.

Ben Cao used to apply massage therapy and acupuncture in his practice. He described needling sites particular for different diseases in his book *Nang Jing* (The Classic of Difficulties), comprising 81 Chapters, in total.

In *Shanhai Jing*, the tractate dated back to V-IV centuries B.C.E. (On Mountains and Rivers) there is the statement about the mountain location where needles were made. "There is plenty of imperial jade growing atop of this mountain and there are stones at the foot from which the needles are made for treatment purposes".

Within the period between IV century B.C.E. and I century C.E. the practice of acupuncture expanded once the traditional Chinese medicine (TCM) distinguished the area of expertise and the acupuncture was recognized one of the major alternative medicine methodologies. Hua Shou (190 yr. C.E.) was the brilliant diagnostician and a great surgeon. Skilled and experienced in surgical operations, he also mastered acupuncture methodology. However, due to the Confucian ethics based on which any surgical operation on the human body was strongly condemned (irrespective of whether it was a dead or live body), the expansion of such disciplines as anatomy, physiology and surgery had been slowed down for centuries in China.

The scientist of the late Han Dynasty Pei Wen prepared the acupuncture guideline, which was unfortunately lost up to date, and therefore, the most ancient work A.D. is considered to be the famous AB Canon of Acupuncture and Moxibustion compiled by Huangfu Mi, the Confucian scholar, to assemble a reliable body of doctrines concerning acupuncture (sometime between 215 and 282 C.E) *Jia Yi Jing* Theory comprising of 12 Volumes: Volumes I-II- introduction into anatomy and physiology; Volume III- description of 354 points on the human body due to acupuncture therapy; Volume IV- pulse doctrine; Volume V is the description of prohibited points for acupuncture application; Volumes VI-XII describe specific pathological factors indicating specific points

where acupuncture technique should be applied with particular diseases.

At the later stage, within the epoch of considerable blooming of culture and science in China, plenty of special works were developed related to acupuncture therapy. Some of the illustrated pictures with basic acupoints on the human body surface for acupuncture point injections.

So, for instance, the scientist Qui Zhi contributed to the survey to study acupuncture methodology and moxibustion to treat various vertebral column disorders. U Fu-Chu wrote the book on the acupuncture role in treatment of child diseases.

Throughout X-XIII centuries all newly established medical schools facilitated to open units to train acupuncturists.

In 1027, supervised by Wang Wei-Qe, two copper figures of actual human height were cast with holes drilled through the surface to associated with points due to acupuncture technique. One of such acupuncture models is kept in the Hermitage in St. Petersburg.

In XIV-XVII centuries various theses and works appeared constructed by scientists of various schools devoted to trends in China that considerably promoted acupuncture therapy.

TMC acupuncture has been the asset for many other cultures, in particular for Far East countries, down the ages. The most widely this methodology found its popularity in Japan. In X century lots of medical schools to study acupuncture were created in Japan that trained acupuncturists for 4 years. Such schools function until now. Special medical care facilities of clinical practice are still in place there, where specialists render assistance to people using acupuncture technique. There is a food deal of acupuncturists in Japan.

Primary data on acupuncture appear in Europe only in the late XVII and early XVIII centuries. And only in 1816 the practitioner from France, Berlioz (father of the famous composer) stated the results of success cases of patients management based on acupuncture therapy in his memoirs. Soon after, his followers were found in almost all European countries, in particular Bretonio, Bonne, Dabri, Dentu, Lacroix, Meyro, Trousseau and other scholars from France; Churchill from England; Carrera from Italy; Haym, Grimm, Hubotter from Germany; practitioners from Russia were also greatly concerned in acupuncture.

A.A. Tatarinov (1817-1885) studied traditional Chinese medicine rather comprehensively than any other European researchers, in particular, the acupuncture school. The Professor of the General Medicine Chair at the Medicosurgical Academy, P. Charukovskiy (1828), truly adhered to acupuncture therapy and had the vast experience of using it in practice.

Consequently, TMC and its techniques, predominantly acupuncture, were used in practice all over the world.

In China itself, during the epoch of obscure supremacy the science and culture, including medicine, were greatly suspended from progress. Only in the regions liberated by the People's Army, scientific and research studies were conducted, and in particular, acupuncture issues were addressed. This resulted in creation of *A Manual of Modern Jen Zhu Therapy*, the fundamental scientific work issued in 1948 by the professor Ju Lian. The manual was then translated into Russian language in 1959 upon achieving the final liberty at the territory of People's Republic of China. The Doctor Ju Lian headed the Central Scientific and Research Acupuncture Institute in Beijing.

Professor Yang Zhi Shen should be specially distinguished among all other acupuncturists and TCM experts presently. Recently acupuncture units and cabinets are opened in many hospitals, polyclinics and other therapeutic and educational institutions there. In France, particularly in Paris, acupuncture therapy has also expanded greatly. This alternative medicine is of great concern of practitioners from European and American countries.

Needling therapy was first introduced to Uzbekistan in 1982 with the purpose to treat allergic diseases. The specific profile of corporal and auricular points was elaborated for 18-day treatment course. The acupuncture methodology proved its efficiency within years of experience in practice. It allowed minimizing administration of antihistamine, hormonal and other medicinal drugs and increasing efficiency of allergen-specific immunotherapy.

The distinct and concluded theory to clarify the acupuncture principles and mechanism is not available. It is assumed that the immediate impact on the *shu-points* allows normalization of the internal organ functions which these points are associated with, and secondarily (through this organ) they influence the vital function of the whole body systems. The impact nature depends on the procedure technique performance and features of the point chosen. Chinese and Japanese practitioners assume that there are points through which only tonifying or sedative effect can be caused to the organism. The acupuncturists argue on which particular internal organs and tissues can be acupunctured. For instance, Kloke avoided needling nerves while Bonne tried hard to needle the nerve itself in his practice.

Brentano, Ferreiol (1932) and et al, gave evidences that the brain and spinal cord, heart and vessels, lungs, kidneys and intestines could

be acupunctured without damage, and Brentano assumed that for the treatment of particular diseases this technique was only indicated. Other acupuncturists, for instance, P. Charukovskiy, made cautions not to needle great vessels of the nerve, chorda and internal organs.

Throughout many centuries the elaboration of the traditional Chinese medicine theory was largely obstructed due to impossibility to dispose autopsy findings and conduct trials on animals in China.

At present the Central Scientific and Research Acupuncture Institute runs in China, and all theoretical issues are under development by means of all innovative treatment modalities.

It was supposed during ancient times that needles open holes through which diseases emerge. *Niyati* (cosmic energy), by the strong belief of the ancient Chinese healers, specifically exert the influence on the body and treatment of diseases, and due to such belief special-purpose rules were used to be customized under which treatment procedures were to be performed on particular days of the year when the external conditions were the most beneficial for that. The investigators from Europe, in particular, Trousseau, addressed to acupuncture in certain cases without any efforts to identify the mechanism of influence of such therapy, while most of them (apart from Grimm) rejected any possibility to interpret the acupuncture efficiency due to psychotherapeutic influence.

The mechanism of acupuncture efficiency in the clinical allergology practice

According to the chemical theory of medicine, the impact of needles differs depending on the material used. So, needles made from gold were aimed to have a "tonifying" (bu) effect or "sedating" (xie) effect where silver ones were used.

Recently, acupuncture is expanded as a reflexotherapy technique and is much more recognized. A great deal of investigators notes that in most cases "vital points" according to TCM, are located in accordance with the zones described by Zakharyin-Ged. Comparison of the "vital points" with these zones is specifically described in *New Method of Treating Acupuncture and Moxibustio*, the work of the Japanese physiologists Koeman, Hirota and Yanagi (1943). The investigators aimed to specify the relationship between the skin and internal organs. In their opinion,

impulses that go from skin where nerve fiber endings are, and to the spinal cord and brain, and through sympathetic and parasympathetic nerve fibers, transfer directly to the internal organs. They reasonably assumed that along this route the nerve impulses could travel in both directions: from internal organs to the skin and vice versa. With any internal organ affected by the disease, the nerve endings are tonified and impulses pass through the mentioned routes to the required zones of the skin with concurrent onset of local tenderness, sensitivity increase or decrease, tissue induration and so on. "Vital points" were the most responsive zones of the skin, according to Hirota and Yanagi, which match the above nerve pathways.

Thus, pursuant to the reflex theory, with mild stimulation of nerve endings in particular points of the skin, subcutaneous tissue, muscles and other tissues by acupuncture technique, the impulse is transmitted along the nerve trunks to the central nervous system and besides, the stimulated periphery does not cause motor response, but the reaction of the autonomic nervous system, resulting stabilization. Recent studies reveal that introduction of electroencephalography stimulation applied to the peripheral zone using acupuncture technique results in stimulation of the cerebral cortex reflexes which control the body as a whole, and which, in turn, can advance rehabilitation of internal organs and tissue functions, even those distant from the acupoint.

Acupuncture can help reactivate nervous regulation in the body by means of normalization of strength, mobility and sustainability of tonifying and sedating processes in the cortex.

Based on the abovementioned conception the patient's condition significantly improves due to that acupuncture therapy inhibits allergen in the course of allergic reaction onset and antibodies by the reagin. With application of acupuncture the number of mast cells and accumulation of eosinophils and neutrophils decreases in tissue, thus releasing biologically active substances from target cells.

As a result of vast experience to prove the clinical efficacy of acupuncture technique, the following conclusions can be made:

- Acupuncture is highly effective in treating allergic itchy dermatosis, pollinosis and respiratory allergosis, including bronchial asthma;
- Extensive use of acupuncture in allergic diseases management concurrently with other medication therapy allows considerable reduction in consumption of antihistaminic medicinal drugs;

- Using acupuncture technique makes it possible to successfully manage patients for the allergic test followed by allergen-specific immunotherapy at any time of the year;
- Acupuncture procedure performed 2 to 3 times as much intensifies the effectiveness of the primary allergen-specific immunotherapy, because it acts as a specific immunotherapy.

Indications and contraindications for acupuncture

The list of diseases treated with the acupuncture therapy in China is very extensive and covers almost all internal organ diseases, neurological and psychiatric diseases, infectious diseases and others. In addition, these methods are very effective as a symptomatic treatment; they are used to relieve pain of various etiologies, vomiting, dizziness, insomnia and other painful symptoms.

Due to the global increase in number of various allergic conditions and specifically drug allergy, today drug-free therapeutic techniques are most required in medical practice, and acupuncture plays its major role in this tendency.

The acupuncture therapy is considered as the strong measure to prevent onset and development of diseases. It supports vital human functions and helps prolong the life span.

Consequently, in the opinion of Chinese practitioners, the acupuncture has a wide scope of indication to use in medical practice. Findings identified by TCM practitioners have completely proved the effectiveness of acupuncture therapy in allergic diseases management.

In the late 20th century the French scientists Flandin and Ferreirol, Martini, Boudier, Roger et al., came to conclusion that the acupuncture was the most powerful tonifying technique ever used. Needle insertions, in their view, stimulate haematogenesis, contribute to improvement of blood circulation and metabolism and significantly increase body resistance to various diseases.

Soulier de Moran (1934) reports, for example, that only after two punctures (in the back and lower leg) he managed to identify considerable increase of erythrocytes in the patient's blood in 24 hours (from 5000000 to 18000000), of hemoglobin to 20% and leucocytes 2000-3000 as much. In his opinion, the acupuncture technique impacts the level of blood pressure, muscle and nervous tone. Flandin (1933) and Ferrerol (1932)

claim that acupuncture beneficially effects patients suffering arthritis, myositis, neuralgia of any nature and headaches of migraine type.

Roger (1930) proves on inevitable analgesic action of the acupuncture to the health of patients with various visceral diseases.

Martini and her assistant, the Indo-Chinese practitioner Nguyen van Quan (1930) applied acupuncture therapy within three years and witness the complete success of a number of diseases management (ischias, lumbago, myositis and arthritis, enuresis, gastric neurosis and inclination to constipations, vomiting during pregnancy, etc.). Nguyen van Quan (1930) came to the conclusion that acupuncture technique is most effective to treat functional sufferings, though this methodology affords substantial improvement with organistic diseases, either. He mentioned that among all internal organs the liver is most easily and quickly exposed to treatment; the cardiovascular system and gastrointestinal tract function can also be considerably impacted. Pains (in case they are not provoked by organistic changes) relieve immediately as the needle is inserted.

Acupuncture is not certainly the universal methodology and it should be only applied concurrently with medicinal, surgical and other methodologies.

Acupuncture has its contraindications, but they are partial relative. So, needle therapy should be applied with the great care in pregnant women, especially in the second half of pregnancy, it is also not recommended during menses as well as in cases when the patient is rather debilitated. The acupuncture should not be used to treat acute febrile diseases since the course of the fever may shift which makes the diagnostics difficult.

It is also not recommended to apply the acupuncture techniques to resolve the conditions of acute exhaustion (after sports classes, hard physical loads), to highly excited people or a person in fear), upon drinking alcohol, directly after meal (20 to 30 minutes should be waited), immediately upon arrival of the patient (20 to 30 minutes of rest), directly after the bath taken by the patient. During the acupuncture procedure the patient should not be exposed to cold. Children under age 7 are prohibited to be punctured in the frontal part of the head.

Therefore, today acupuncture (D. M. Tabeeva, 1980) is widely applied to treat nervous system disorders, vascular diseases of the cerebrum and spinal cord, mental disorders, medical diseases, diseases related to the sphere of obstetrics and gynecology, musculoskeletal system disorders, ENT diseases, as well as diseases of the skin and hypoderm. Acupuncture is proved to be successful in treatment of allergic diseases.

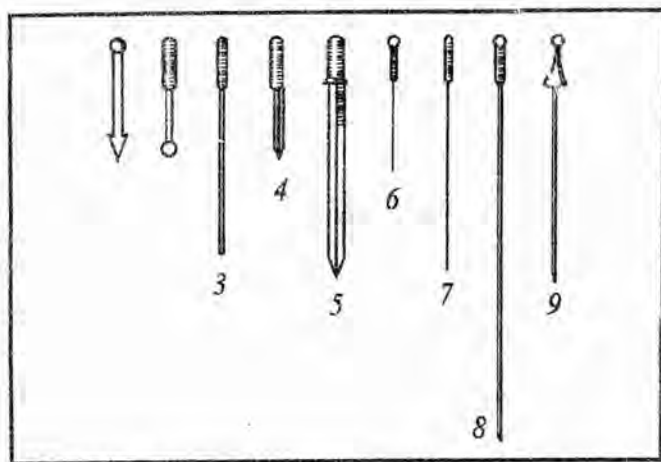


Fig. 1. Needle types:

1 - with sharp end; 2 - with cup point; 3 - with blunt point; 4 - with pointed end; 5 - tapering at the end; 6 and 7 - thin needles; 8 and 9 - thick needles.

The contraindication is malignant growth and benignant formation of any form and any localization, pregnancy, acute febrile illness of unknown etiology, active form of tuberculosis, acute infectious diseases, conditions of acute psychic excitement, alcoholic intoxication, acute debilitation, ageing factors, infancy and senility, respiratory system diseases and blood circulation disorders in the decompensation period. Otherwise the health care professional should specify the indications for acupuncture.

Needle types and acupuncture techniques

In the ancient time nine types of needles were used: with sharp end, with cup point, with pointed end, концом, tapering at the end, very thin filiform needles, thick, thin and others (Fig. 1).

At present thin filiform needles are mostly used, as well as round-end needles of various lengths, made from gold, silver and stainless steel. Of the most popularity are needles of Number 10 made from stainless steel. They vary in length between 1.5 to 16 cm, and in thickness between 0.15-0.45 mm.

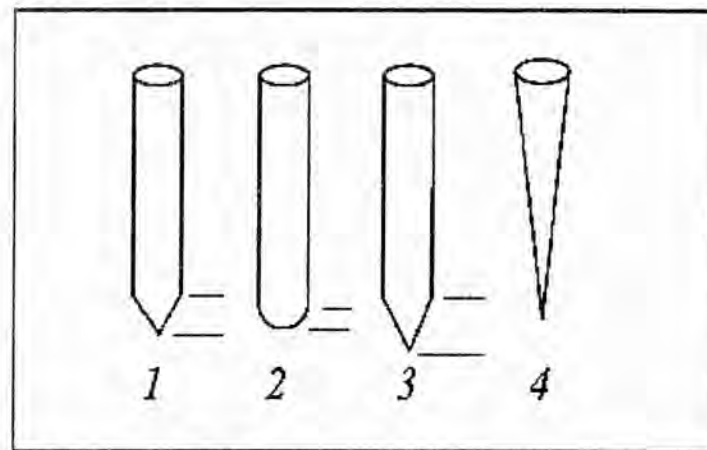


Fig. 2. Types of needle points:

1 - V-shaped point; 2 - egg-shaped point; 3 - spike point; 4 - the point resembling the pine needle.

Thin and short needles are used to relieve irritation and revulsion, while thick and long needles are used for sedation effect. Besides, there are needles designed especially to treat children. They come in the same diameter though they are shorter in length. Needles are made from 4 parts: handle (thickening part of the needle with the threads), the base (the point where the handle is connected to the handle), the body (from the base to the pin-point) and the needle of the needle base. There are four kinds of needle points known (Fig. 2).

Needles with the points described under No. 3 and 4 are most preferably used which cause less manifested pain sense.

Needle storage

Needles can be stored in tubes (made from glass, bamboo and metal) but the risk of fracture or bending is too high. Such storage method is not convenient for using since all needles should be removed or dropped out of the tube to take one or some of them.

Needles are often stored in the case (made of fabric, carton or wood). However, the cases made of fabric are not so convenient since needles

are at risk to bend in them. The best choice is a case made from the solid material, such as wood or metal. The case should be lined with some cotton wool and covered with the cotton gauze. Needles are placed on the cotton gauze to house needles of various lengths.

Needles should be stored dry and this rule is of the priority for any acupuncturist. Prior to use needles or post acupuncture procedures the needles should be wiped off with the emery powder.

Acupuncture skills acquisition

Acupuncturists should apply some force when doing the procedures, and thus, the strength of fingers to train is of the top-priority. For the strength training cotton swab should be prepared (tennis-ball sized) and winded with one layer of thread. This technique should be trained on a daily basis for 20 minutes puncturing the cotton swab with the needle of 6 cm length. On a daily basis the cotton swab should be winded with a layer of threads for 10 days, and every 2 to 3 days the one more layer is added. The skill should be practiced for a month, and after that the fingers are found to be sufficiently trained to avoid pain during acupuncture experienced by the patient.

There is another training practice, however. Six pages of the notebook are hung on the shoulder level which are punctured within 20 minutes on a daily basis. Every day one more page is added and the quantity of pages is increased to 40. Applying the first and second training techniques, skills are developed not only in puncturing the object but rotating needles, either.

Acupuncture arrangement procedure

The acupuncture technique is usually followed the palpation of the expected needling site. The practitioner can also massage this area while examining. The tenderness of this area depends on the length and depth of the area rubbed. With the decreased sensitivity the short-term and surficial massage is applied to the acupuncture area. The massage should be avoided if the needling site is not restrained and muscles are relaxed.

The needle is chosen in accordance with the needling site, body constitution, age and health condition of the patient, and nature of the impact.

The needle should be straight, flexible, sharp and unruled. In case the needle is bended, it should be straightened by leveling with the thumb and forefinger from the handle towards the tip. In no way the needle can be flattened out with the hard object onto the flat surface.

Needles should be boiled within 10 to 15 minutes or thoroughly treated with 70% spirit.

The expected needling site should also be thoroughly treated with the spirit.

It is proved in practice that it is much better to assign an individual set of needles for a single patient to avoid any risk of viral or infectious diseases transmission. Anyway, the needles should be, in such cases, treated with 70% spirit. The patient should be warned on the procedure to be done to avoid negative emotions and bad expectations. Some unusual feelings during acupuncture technique should also be informed on. The patient should be positioned in comfort (sitting or lying position) with all muscles relaxed to the highest extent.

The patient is arranged in the sitting position while doing acupuncture procedure in the head or the back; when the needling sites are in the face, the patient is put prone, with the head on the pillow with the healthy face side downward.

The supine position is recommended for those who feel difficult to be seated. The patient is positioned duly according to the acupoint to be handled: on the back, stomach or the one side.

Prior to the procedure, the acupuncturist palpates the acupoint with the thumb and the patient is asked to inform on the feelings during palpation and the needling site identification.

It is not recommended to press hardly the required acupoint since this can provoke the response from the patient as muscle tension. During palpation movements, the acupuncturist should make sure there are no bruises, scars, scratches around or in the needling site, and that the needle does not penetrate the subcutaneous vein.

The acupuncture procedure does not admit fuss and hurriedness. The patient should be informed not to move after the needle is inserted. When the patient is exposed to acupuncture procedure for the first time, up to three acupoints can be handled at once, and more procedure can cause faint in the patient. If the patient experiences the dizziness, vomiting, nausea, the procedure should be discontinued.

The acupuncturists should take a special care of anaemic debilitated patients. Such patients should lie prone, the needle should not be rotated, and left after insertion in the tissue even in case of paralytic stroke to avoid strong stimulation.

In such cases the least points should be punctured, as required.

In case if convulsions develop, or the muscle is strongly tensed during needle insertion, it is not recommended to remove it harshly; it is better wait until the muscles are relaxed.

In case of too elastic skin in the patient, the needling area should be previously massaged at some distance from the acupoint. If it is flabby, on the contrary, the skin is lifted with the thumb and forefinger and the puncture is done to the skin crease point between these two fingers. The needle is usually inserted superficially in children and monitored to avoid moving.

Needle insertion technique

The needle is held with the thumb and the forefinger at the line of the handle and the needle body. The middle finger is put onto the needle body just in front of the forefinger.

Therefore, the needle is held with the help of three fingers and inserted into the tissue by rotating movement or seldom by the light tapping onto the needle handle (the latter is used when the abdominal skin is acupunctured). The needle is not inserted to the very end, the clearance between the needle handle and the skin should be 0.5 cm, at least, since the joint where the handle is attached to the needle is the most fragile part.

The depth of the needle insertion varies according to the aim of treatment: there are special indications for particular acupoint puncture, and where the depth of insertion may considerably vary based on the patient body constitution. The acupuncture procedure lasts until the patient feels de-qi ("arrival of qi") which refers to the feeling of heaviness, numbness, distention, cooling, fevering, electric tingling at the needling site. If the patient fails to feel de-qi sensation immediately upon needle insertion, the needle should be pulled a little up and inserted in the other direction or nearby without removing it and various manipulation techniques should be applied, such as shaking, trembling or plucking. Sometimes such feelings arise a bit later in the patient, time after the needle is already inserted in the tissue.

The patient feels a minor tenderness in the needling site, apart from cases when the practitioner intentionally provokes the pain reaction. The technique of pain reaction mechanism is triggered when the needle is inserted:

- Press the skin near the needling site with the left-hand thumb to have the needle insertion easy;
- The needle is easy to insert if the skin is pressed with two fingers of the left hand near the needling site;
- When the acupuncture is applied in the chest, back or abdomen area with their muscles relaxed, the skin should be stretched by the thumb and forefinger of the left hand and needle is inserted between fingers;
- Where the acupoint is on the abdomen or lumbus area, the left hand is placed onto the area of needle insertion, and acupuncture may be done between these two fingers.

With the purpose to treat allergy-associated diseases in children the acupuncture may be applied from the age of 3 with the stronger effect against that in adults.

Ten acupuncture methods

1. Direct or single puncture: a needle is inserted in the particular depth pricking the skin. In case the stimulation is needed, the needle is slightly rotated to get the meridian stimulated; if sedative effect is required, the needle is rotated stronger. In both cases the needle is removed immediately after the procedure. This method is often applied during the first visit and for treatment of debilitated patients, especially women and children.

2. Puncture with the needle rotation: when pricking the skin with the needle and removing it, the needle is rotated about the axis causing the stronger excitation. When the stronger stimulation is required, the needle is rotated slowly with a small turn and the puncture should be short in time. For the sedative effect the needle is rotated faster, making a larger turn, and the puncture time can be longer.

3. Puncture with left the needle inside tissues for some time: as soon as the needle pricks the skin, it is inserted as deep as possible until the patient feels the sensation of swelling, cooling, heat or electrical tingling in the needling site. Then the practitioner leaves the needle in the patient's body for 5 minutes to 1 hour. The concurrent stimulation is considered sedative.

4. Ramming technique: the needle is inserted at the particular depth, then it is moved upwards and downwards continuously without removing it from the needling site. This technique is performed to cause mild and strong tonifying effect (when it is done for mild tonifying, the acupoint is stimulated).

5. Intermittent technique: this method is similar to the previous one with the exception that the needle is held through the muscle while moving it and after it is inserted at the maximum depth, it is removed and inserted again in the tissue rotating it upwards and downwards. This procedure is performed 4 to 5 times. The procedure is aimed to achieve the muscle relaxation and local vasodilatation.

6. Sort of intermittent technique: the needle is inserted in the way as it is described in the previous technique, with such difference that the needle is left in every particular acupoint for the considerable period of time. This technique is especially effective to treat neuralgia.

7. Puncture with the permanent tapotement and grinding upon the needle handle: the needle left in the patient's body with the purpose to achieve the sense of cooling, fever, swelling, etc. this technique is most reasonable to manage patients affected with paralytic stroke.

8. Random puncture: after the needle is inserted into the body tissue, quick and strong punctures are performed or the needle is rotated in different directions. This technique is rather effective to relieve sharp and strong pain.

9. Punctuate and intradermal (childish) punctures: with the help of the only needle several punctures may be performed to achieve the local irritation effect, the depth of the puncture should not be more than 4 mm. this technique is mainly used to treat children and debilitated patients.

10. Acupressure (without needles): with the touch ball of the thumb the particular acupoint is pressed. In such a way sedating or tonifying effect is achieved depending on the pressure intensity. This procedure is applied mostly for children for which the acupuncture procedure may appear too stressful.

About Chinese Qi and Bu-Xie

Brief information. In the opinion of ancient Chinese practitioners there are 12 regular "vital lines" (major channels known as meridians) on the human body which are most closely associated with particular internal

organs. These lines are believed to be associated with bodily organs conceptually through points related to the treatment of corresponding organ diseases. Location of these lines ordinary corresponds to the route of pain irradiation with diseases of these organs. Later on, these points located along the medium body line were integrated in two additional meridians: anterior midline (from the pubis to the center of lower jaw bone) and posterior midline (from the upper lip fossa center to the anus). Therefore, 14 meridians are distinguished today.

In the opinion of the Chinese practitioners, the body functions rely on the integration and opposition of Yin and Yang systems.

Yang system unites the positive features perceived as activity, warmth and light. Stimulation of points that relate to the Yang system has a tonifying effect to the body, induces increase in heart function, increase in blood pressure, etc.

Yin is the system of negative features under which the Chinese practitioners perceive inactivity, darkness and coldness. Stimulation of points that relate to Yin system, causes sedation, blood pressure is decreased, pulse and breath are moderated.

Thus, the conception of Yang and Yin systems conforms, to some extent, to notions on sympathetic and parasympathetic nervous system. The concept of Yin and Yang is applicable to the human body, and they interact in the whole body closely between each other.

12 regular meridians are divided into 6 channels that refer to Yang system (positive meridians), and 6 channels that refer to Yin system (negative meridians). Since these channels are found in the upper and lower extremities, and also, in the half part of the body, they are referred to as paired. Channels that relate to Yin system lie in the anterior surface of the torso and extremities, while channels related to Yang system, go along the posterior surface.

The name of every channel is made of three parts. The first part shows, whether this meridian refers to the upper extremities (then the first syllable is zhou) (6 meridians) or to the lower extremities (then the first syllable is jue) (another 6 meridians), the second and third parts (line title and instructions) indicate if the channel refers to Yin or Yang system.

In the table below there is the data on the lines and their titles, locations and relations with organs.

Table 1

Lines located in the internal surface of body

Yin Meridian (negative)			Yang Meridian (positive)		
Location on the extremity	Title of the line	Relation to internal organ	Location on the extremity	Title of the line	Relation to internal organ
Arm	Shou Tai Yin	Lungs	Arm	Shao Yang Ming	Large intestine
Leg	Jue Tai Yin		Spleen Leg	Jue Yang Ming	Stomach
Arm	Shou Shao Yin	Heart	Arm	Shou Tai Yang	Small intestine
Leg	Jue Shao Yin	Kidney	Leg	Jue Tai Yang	Gall bladder
Arm	Shou Yu Yin	Pericardium	Arm	Shou Yang Shao	Triple burner
Leg	Jue Chui Yin	Liver	Leg	Jue Shao Yang	Gall bladder

UPPER EXTREMITY LINES

Negative hand channels

1. **Shou Tai Yin** (the first negative line of the arm, that is the lung meridian). The line starts from the iliac bone cap over the navel along the anterior and lateral aspect of arm and goes down to the thumb. It contains 11 points with the major of them as follow: Chi Ze, Lie Que, Tai Yuan, Shao Shang.

2. **Shou Shao Yin** (the second negative line on the hand, the heart meridian). It consists of two parts not related to each other. The meridian mainly starts its course from the center of axilla, runs downward on the medial aspect of the arm and reaches the corner of the nail of the little finger. There are 9 points in the meridian with the major of them as follow: Si Bai, Shao Hai, Ling dao, Tong Li, Shen Men, Shao Chong.

3. **Shou Hue Yin** (the third negative line on the hand, pericardium meridian). The line starts from the lateral side of the navel over the internal surface of the hand. It consists of 9 points with the greatest of

them as follow: Qu Ze, Tian Chi, Nei Guan, Da Ling, Lao Gong, Zhong Chong.

Positive hand channels

1. **Zhou Yang Ming** (1st positive hand channel, large intestine meridian. The points of this line are additionally acupunctured in the treatment of nose function disorders). This starts its course from the tip of the index finger and goes to the lateral end of the cubital crease. Total number of points is 20, with the greatest of them as follow: San Jian, He Gu, Shou San Li, Qu Chi, Jian Yu, Jiu Jiao, Ying Xiang.

2. **Shou Tai Yang** (2nd degree positive hand channel, small intestine meridian. The points of this meridian are acupunctured in treating ear diseases). The line starts from the tip of the little finger, turns in the posterior-medium aspect of the hand, forearm and arm to the ear. Total number of points is 19, and the major of them are as follow: Hou Xi, Yang Gu, Shao Hai, Jian Zhong Yu, Ting Gong.

3. **Zhou Shao Yang** (3rd positive hand channel, triple burner meridian. The points of this channel are used in treating eye and ear disorders). The line starts from the IV finger to the head. The major points are as follow: Yang Chi, Wai Guan, Zhi Gou, Yi Feng, Si Zhu Kong.

LOWER EXTREMITY LINES

Positive legs channels

1. **Jiu Yang Ming** (1st degree positive legs channel, stomach meridian). It starts from the infra-orbital region, downward to the angle of the mouth and to fingers of lower extremities. Total number of points is 45, among them the major are as follow: Si Bai, Jiu Jiao, Di Kang, Xia Guan, Jia Che, Da Ying, the positive channel Yin of the hand. The secondary priority are points located in the chest and the abdomen, starting the course from the center of the collar bone to the center of the groin. The points located on the feet include Zu San Li, Feng Long, Nei Ting.

2. **Jiu Tai Yang** (2nd degree positive leg channel, urinary bladder meridian). It starts from the medial canthus of eye, runs over forehead, head and vertex parallel to mid-line, then it goes to the back and low extremity. Total number of points is 63, the major are as follow: Jin Men, Juang Zhu, Quy Cha, Tong Xian, Tian Zhu, Da Shu, Feng Men and other points of the 1st lateral line of the back, Wei Zhong, Cheng Shan, Kun Lun, Shen Mai.

3. **Jiu Shao Yang** (3rd positive leg channel, bladder meridian). It starts from the medial canthus of the eye, runs to the ear, circling around it and goes downward to the occipital region. From that point the channel runs back to the forehead and backward parallel to the midline of the neck, descending on the lateral side of the trunk along the lateral side of the abdomen, leg and foot. The total number of points is 43, with major of them as follow: Zi Jiao Tong, Fengchi, Huan Tiao, Feng Shi, Yang Ling Quan, Qu Ling Qi.

In the belief of the ancient TCM practitioners the functions of various internal organs and systems can be broken into five elemental qualities presented by fire (huo), water (shui), earth (tu), wood (mu) and metal (jin). These Phases are in the complicated correlation between each other. Internal organs related to one or another element appear as synergists or antagonists to one another, accordingly. Simultaneous stimulation of acupoints located in channels related to synergist organs is allowed and indicated in particular cases. Stimulation of points located in channels related to antagonist organs may cause the negative effect (deterioration in the condition, faint during the acupuncture procedure).

For the practitioner to adequately choose the points for puncture and avoid stimulation of those incompatible with the punctured channel, a simple and easy scheme was developed in the ancient time as shown below (Fig. 3). The relationship between the five elements and corresponding internal organs is shown in this scheme.

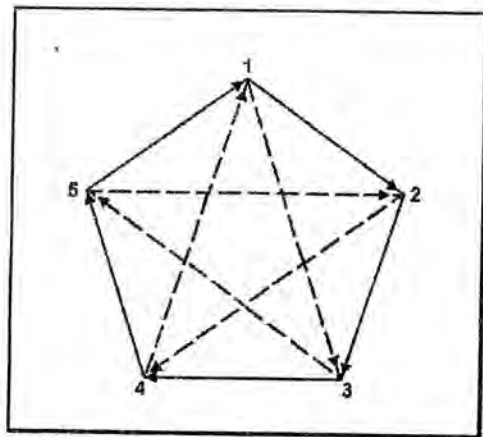


Fig. 3. Vital channel.

Elements joined in the solid line with the arrow present the inter-promoting relationship being synergists; the elements joined in dashed line with arrows are antagonists. For example, with the purpose to treat stomach disorders, the points are acupuncture that are usually used to treat heart and small intestine disorders, and puncture is not allowed in points used to treat liver and gall bladder disorders.

Despite the empirical nature of the illustrated scheme, the knowledge and mastership of "vital energy channels" as proved in centuries-long practice, is required to correctly choose the combination of points for acupuncture and moxibustion procedures.

Negative leg channels

1. **Zu Tai Yin** (1st negative leg channel, spleen meridian). It starts from the toe of the lower extremity to the chest. It consists of two parts not related to each other. Total number of points is 20, with major of them as follow: Gong Sun, San Yin Xiao, Yin Ling Quan, Xue Hai. The channel is then parted. The second part of the channel includes Guang Yuan and points of lateral side of the thoracic wall.

2. **Qu Shao Yin** (2nd negative leg channel, kidney meridian). It starts at the central line of the foot sole, travelling towards the medial side of the ankle to make a loop; then it ascends along the medial side of the leg, passes the medial side of the popliteal fossa, and travels up the postero-medial aspect of the thigh, reaching the front of the abdomen, close to its mid-line. The total number of points is 27, with major of them as follow: Yong Quan, Fu Liu, Tian Shu.

3. **Qu Chong Yin** (3rd negative leg channel, liver meridian). It starts at the big toe and the web space between the toe and forefinger, runs to the abdomen and to the head (lateral side of the head). This channel covers points located in the larynx zone. The total number of points is 13, with major of them as follow: Da Dun, Xing Xian, Tai Zhong.

Qi

Chi means "vital energy", "soul" from the Chinese. The ancient Chinese practitioners believed that "specific qi energy" was required for normal body functioning. They supposed that there were two kinds of energy in the body - inner and specific, whereas every single kind of energy circulated by its individual route (lines, channels, meridians).

Inner energy, in accord with the ancient canons, is created upon the theory of two components interaction: "cosmic" and "earth" food. The

Five Elements is a fivefold conceptual scheme that many TCM schools tried to explain a wide range of phenomenon, from cosmic cycles to the interaction between internal organs. According to Wu Xing (or Five Elements) the spleen relates to the Earth element, lungs - to Metal element. In the opinion of ancient practitioners, the spleen governs the food digestion process which is the substrate taken from the earth. This food transforms into the inner energy of earth origin after it is digested in the body. The lungs, for example, absorb the air, i.e. the substance that is vitally required for the body, though this substance originates from the other place, correlated with the earth environment, or the space. Consequently, this is of "cosmic" origin. When the body deprives of one of these food varieties, it dies without such energy. Inter-promotion and inter-correlation of these two components creates the inner energy.

Thus, based on the above it may be concluded that ancient oriental practitioners did not consider the body inner energy as some metaphysical essence and perceived the "strength" under such notion which arises due to interaction of two components: energy produced from the air exhaled and energy caused during food processing. This scheme appears to be close to the way how we perceive the metabolism of the organism and the environment, as well as its role for vital functions of all bio-objects.

The inner energy in the state of stable equilibrium "circulates" along its own routes (specific channels) along the surface and in the depth of tissues. These routes are not anatomically justified and named, thus, the routes are also known as lines, channels, meridians, vital lines and their external and internal tracks are described particularly.

Non-availability of anatomic substantiation evidence on the fact that these meridians are created as conception only. Even today European and Oriental scholars find it too difficult to prove availability of meridians in fact, indeed.

However, the representatives of the ancient Oriental medicine were strong in belief that meridians exist in our body and they argued to persist in their availability due to the reactions obtained during acupuncture (Zheng Therapy).

In view of the ancient scholars and practitioners, not only inner energy circulates along the specific routes in the body but the "blood", either, including the blood itself, lymph, tissue fluid). Some scholars from abroad imagine the cycle of heart meridian inner energy; in this instance they seem to take the blood cycle as a basis of circulation.

Nevertheless, the ancient practitioners place the energy in the top position, while "blood" seemed to be subordinate concept. They believed that energy circulation that runs along the specific channels is the

fundamental of the body vital activity. The inner energy that circulates along 12 regular meridians interacts, on the one hand, with internal organs, and with the environment, on the other hand. This energy circulates through the paired meridians and covers the internal organs in the strict coherence. Under the ancient Oriental medicine, the energy cycle starts from the lungs meridian, since the human is in the permanent relation with the environment and ambient air while breathing, whereas the air is the most important energy source. They used the term - "Big circle of the energy flow" to name the inner energy flow in the body. It was believed to ensure the balanced functioning of various systems of the body.

The inner energy subsequently passes through all 12 regular meridians (2 Yin meridians and 2 Yang meridians, etc.) for 24 hours, within a day. In the meantime, according to the ancient medicine every meridian out of these 12 has its own highest and lowest basic potential. The highest potential of the body is reached at the moment when energy passes, and the lowest - in 12 hours, that is when the energy runs through the directly opposite meridian. Thus, starting from the lungs meridian, its highest activity is observed at 03:00 - 05:00 a.m., the energy passes to the large intestine meridian at 5:00-7:00 a.m., the stomach meridian - at 07:00-09:00 a.m., the meridians of spleen and pancreatic gland - at 09:00-11:00 a.m., the heart meridian - at 11:00 a.m.-13:00 p.m., small intestine meridian - at 13:00-15:00 p.m., urinary bladder - at 15:00-17:00 p.m., kidney meridian - at 17:00-19:00 p.m., pericardium - at 19:00-21:00 p.m., three parts of the body - at 21:00-23:00 p.m., gall bladder - at 23:00 p.m.-01:00 a.m., liver - at 01:00-03:00 a.m., and upon completing the full cycle for 24 hours, the energy returns to the lungs meridian at 03:00 a.m. As it is seen, the lowest basic potential for the lungs meridian comes at 15:00-17:00 p.m., which corresponds to the maximum (highest) basic potential for the lungs meridian. (Fig. 4)

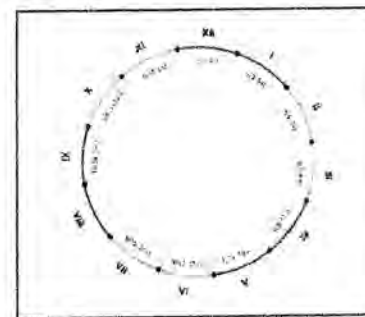


Fig. 4. Big cycle of energy circulation. Meridians are specified in numerical letters.

So, according to conceptions of the ancient oriental medicine the inner energy pursuant to the flow big circle cycles along 12 regular meridians, starting from the lungs meridian and ending in the liver meridian for 24 hours. Over the period of the cycle it passes Yin and Yan meridians one-by-one.

Bu-Xie

In Chinese Bu means to supplement, increase, or strengthen. In Chinese Xie means to dispel, eliminate, drain or resolve. Based on the principle that "the treatment should be proved by contradiction", the sedation method is used in excess-type conditions (Yang type - fullness), while tonifying effect is applied in deficiency-type disturbances (Yin type - hollowness). Therefore, in case of pathology with any of the organs concurrently with decrease of functions thereof (abundance of energy in the meridian), Xie procedure should be applied, that is the excessive Qi is drained from that organ causing sedating effect.

In the modern literature these two kinds of activity are described as "tonifying" and "sedating" effects. The particular action to normalize functions of the body is reached by needle insertion to the acupoint that tonify or sedate those meridians.

While elaborating the rules for Bu-Xie procedure, ancient practitioners used to apply golden needles for tonifying effect, and silver needles - for sedating.

Given the great importance of this principle, the Bu-Xie technique is applied twice every ten minutes within a 30-minute session in the clinics of allergology. This procedure intensifies the efficiency of acupuncture technique as twice as much.

Acupuncture procedure

The procedure is usually started from upwards to downwards, that is the needles are inserted in the head, then upper extremities and the body, and finally in the lower extremities.

The regular, or major, point is needled first, and then the additional ones. Puncturing additional points, the least painful points are first treated. The technique that causes revulsive effect is first applied, followed by punctures with tonifying or sedating effect.

Needle removal procedure

Needles are removed in the reverse sequence, i.e. from the bottom upwards. While removing, the needle should be smoothly and slightly twirled. As the needle is half removed it is left in the tissue for up to the minute, then remove it almost to the end and leave again for some time. In such case the patient feels no pain and there is no blood appeared in the acupoint. As soon as the needle is removed, the needling site is wiped with the cotton gauze and then with the cotton swab soaked in spirit.

If it is found difficult to remove the needle, it's better to wait some time (until muscles relax), and then, if muscles are still convulsed, 2 to 3 punctures are applied at 3 to 4 cm near the needling site. This is usually followed by total relaxation of muscles, and needles can be then removed easily.

In no way the needle is removed with a quick or harsh movement, otherwise it can be broken.

If the patient feels sharp pain in the muscle or the muscle convulsion develops with needling procedure, the needle should be removed, rotated in the direction opposite to that it is inserted. Sometimes the slight touch of the needle results in the muscle rest.

If the patient moves and shifts the body position after the needle is inserted in the acupoint, it can be dislocated which results in more difficult removal of it. So, the patient should be placed in the initial position as before the needling therapy.

The best way to remove the needle is the following: the practitioner strongly presses onto the skin by both sides of the needling site with the fingers of the left hand, and carefully twirls the needles with the right hand removing it.

Complications during acupuncture procedure

Needle damage. The needle can be broken as the result of: 1) poor quality of the needle material (lack of elasticity); 2) 3 to 4-fold bending of the needle during precious punctures; 3) harsh movement out of the patient's body; 4) sharp and quick insertion of the needle that may cause the muscle spasm; 5) use of too thin needle in the heavy-weighted patient.

If the needle is broken with the chippy end coming from the skin surface, the practitioner extends the skin with the thumb and forefinger with the left hand and removes the needle with the forceps.

If the needle is broken inside the tissue, this is removed by the magnet. In the extraordinary cases the needle is removed through the skin incision with further application of the cutaneous suture.

Local reactions. If hematoma or swelling develops in the needling site upon insertion, the mild massage is performed to the affected area and cold is applied within first 2 days, followed by the hot compress. This site is no longer needled until hematoma resolves.

If the patient experiences heaviness, distension or pain in extremities, an additional acupoint is treated at the nearest point at 2-3 cm of the needling site.

Faint. The faint can be provoked due to the debilitated health state of the patient, as well as exhaustion and hunger.

The patient may get fainted also in the result of the sharp and quick puncture, pain or needle insertion to the vessels in-depth (which may cause hemorrhaging to the surrounding tissues). Finally, faint may occur due to puncturing points which are not recommended to puncture simultaneously (incompatible points). If the patient faints, the needling therapy should be stopped and needle – removed smoothly and quietly.

If the patient is in the sitting position, the latter should be rested and needle – removed. The pulse should be monitored.

In a number of cases a strong puncture to particular points can be helpful (Zu San Li, Zhen Zhong, He Gu, Shao Shang, Zhong Chong, Bai Hui).

If the puncture that caused the faint was done to the upper part of the body, the faint condition can be resolved by puncturing the Zu San Li point; when the first puncture was done to the lower extremities, the upper points Zhen Zhong and He Gu should be punctured for the fainted patient. The patient should be laid prone, covered with the warm blanket. Hot tea is also recommended.

To avoid complicated conditions the acupuncture should be performed with a great care: punctures should be done to the relevant points without inserting the needle in the depth more than expected. The practitioner should remember that needle insertion to the prohibited points may bring to the most serious consequences. Chapter 52 of Huangdi Neijing (The Yellow Emperor's Inner Canon, also known as The Inner Canon of Huangdi), the well-known book, describes the issues on the prohibited points, clinical signs, that occur with wrong acupuncture procedures. Presently practitioners do not use deep insertion of needles and complications of this nature can hardly occur.

Below is the dialogue between the Yellow Emperor Huangdi and his minister Qi Bo:

«...Huangdi asked:

- I would like to know about forbidden points.

Qi Bo answered:

- If the needle is inserted into the heart – the human dies on the same day. The heart's kinesis is the groan.

If the needle is inserted into the liver – the lethal outcome is guaranteed on the 5th day. The liver's kinesis is speech.

If the needle is inserted into the kidney the death is on the 6th day. The kidney's kinesis is sneezing.

If the needle is inserted into the lungs, the death is at the 3rd day. The lungs' kinesis is coughing.

If the needle is inserted into the spleen, the death is at the 10th-11th day. The spleen's kinesis is swallowing.

If the needle is inserted into the gall bladder, the death is at the 2nd day. The gall bladder's kinesis is vomiting.

The above allows concluding that the strict compliance to all acupuncture safety measures makes this technique safe for the health to be used both at clinics and polyclinics providing that the practitioner takes special courses on acupuncture.

Secrets of the ear auricle 128 points of ear auricle

Let us think that about the secret in the ear auricle which is only the organ of hearing, at first thought.

It is well-known that back in 300-200 years A.C. Egyptians and Iranians used to treat various diseases by acupuncture procedures applied to the ear auricle. They used needles made from bamboo tree.



Fig. 5. Topography of ear auricle points:

1 - The upper point of analgesia during tooth extraction; 2 - Palate (the point of the oral cavity upper part); 3 - Oral cavity bottom; 4 - Tongue; 5 - Upper jaw bone; 6 - Lower jaw bone; 7 - Lower point of analgesia during tooth extraction; 8 - Eye, first; 9 - Inner ear; 10 - Amygdala, fourth; 11 - Cheek-bone (cheek); 12 - Upper tragus; 13 - Adrenal gland; 14 - External nose; 15 - Laryngopharynx; 16 - Nasal cavity; 17 - Thirst; 18 - Hunger; 19 - Hypertension; 20 - External ear; 21 - Heart, second; 22 - Endocrine; 23 - Ovarium; 24a - Sense of sight, second; 24b - Sense of sight, first; 25 - Brain stem; 26 - Toothache; 26a - Pituitary body; 27 - Gorge and teeth (point of molar teeth); 28 - Pituitary (brain point); 29 - Hindhead; 30 - Parotid gland; 31 - Breath regulating; 32 - Testis; 33 - Forehead; 34 - Subcortex; 35 - Temple; 36 - Skull peak (point of crown of head); 37 - Cervical spine; 38 - Lumbosacral vertebrae; 39 - Thoracic spine; 40 - Lumbar spine; 41 - Neck; 42 - Chest; 43 - Abdomen; 44 - Mammary gland; 45 - Thyroid gland; 46 - Toes; 47 - Heel; 48 - Ankle joint; 49 - Knee joint; 50 - Coxa; 51 - Sympathetic nerve; 52 - Sciatic nerve; 53 - Clunus; 54 - Lumbodinia (lumbar point of tenderness); 55 - Sheng-men (point of Central Nervous System and general anesthesia during surgery); 56 - Pelvic cavity (uterine cervix); 57 - Thigh; 58 - Uterus (sexual point); 59 - Point that decrease the arterial blood pressure, first (hypotensive point); 60 - Asthma (broncholytic point); 61 - Hepatitis, first; 62 - Fingers; 63 - Clavicle; 64 - Shoulder joint; 65 - Shoulder; 66 - Elbow; 67 - Hand; 68 - Appendix, first point; 69 - Appendix, second point; 70 - Appendix, third point; 71 - Generalized rash; 72₁ - Helix, first point; 72₂ - Helix, second point; 72₃ - Helix, third point; 72₄ - Helix, fourth point; 72₅ - Helix, fifth point; 72₆ - Helix, sixth point; 73 - Amygdala, first point; 74 - Amygdala, second point; 75 - Amygdala, third point; 76 - External genitalia; 77 - Liver Yang syndrome, second point; 78 - Ear peak; 79 - Pudendum; 80 - Urethra; 81 - Rectum; 82 - Diaphragm (uzerou point - zero, by P. Nogier); 83 - End part of helix (solar plexus point, by P. Nogier); 84 - Mouth; 85 - Esophagus; 86 - Cardia; 87 - Stomach; 88 - Duodenum; 89 - Small intestine; 90 - Appendix, fourth point; 91 - Large intestine; 92 - Urinary bladder; 93 - Prostate; 94 - Ureter; 95 - Kidney; 96 - Pancreatic gland (on the left) and Gall bladder (on the right); 97 - Liver; 98 - Spleen; 99 - Abdominal dropsy; 100 - Heart, first point; 101 - Lung; 102 - Bronchitis; 103 - Trachea; 104 - Three parts of the body; 109 - The lower belly; 110 - The upper belly; 111 - Nose and eye point; 112 - Naupathia; 113 - Activation; 114 - External abdomen; 115 - Warmth; 116 - Knee; 117 - Constipation; 118 - Nephritis; 119 - Anus; 120 - Hemorrhoid; 121 - Lesser occipital nerve; 122 - Pancreatitis; 123 - Bronchiectasis; 124 - Hepatitis, second point; 125 - Eyes, second point; 126 - Tubercle; 127 - Enlarged liver; 128 - Hepatic cirrhosis.

During 50s of our own days P. Nogier, the practitioner from France, managed to completely relieve the painful sensation from lumbar radiculitis, performing moxibustion of the particular point in the ear auricle. After that event the scientist performed a range of investigations in this area, and in 1969 he elaborated the topography of points and zones of ear auricle. The points related to internal organs were specified in these topographic zones which are found in the ear auricle. For instance, there

are 13 points of such internal organs as tongue, gum, eye, teeth, and drum membrane in the soft part of the ear auricle.

Tonifying the relevant points, the acute toothache can be resolved, as well as gingivitis, glossitis and oral cavity inflammation. Moreover, the acupuncture procedure is too effective to treat hearing problems, vision troubles and various diseases.

At present scientific investigators revealed 128 points in the ear auricle. These points can be treated for anaesthesiology purposes, treatment of emotional disturbances and psychological breakdowns, gastrointestinal tract cicatrization and other diseases of internal organs, as well as in cardiology. Furthermore, the acupuncture helps to quit smoking and alcohol addiction. Currently the needle therapy is widely applied to treat severe cases of allergic reactions and diseases, such as bronchial asthma, and others. In the acupuncture room at the Republican Allergology Center for Children, at the Chair of Children Diseases of the Department of General Medicine, at Tashkent State Medical Institute (TashGosMI) the acupuncture technique is widely applied, in particular the ear auricle points are used to treat bronchial asthma and other allergic diseases based on scientifically proven materials. We see it fit to discuss some of them as a case study to prove the abovementioned.

An 11-year old girl named N., from Urgench town, was taken to the Medical Center diagnosed with developmental multiplication. It was found out that she was sick since she was 5. She was primarily treated to eliminate syndromes of chill and bronchitis, and when she was 6, she was diagnosed with bronchial asthma. Up to the age of 11, she was hospitalized 2 to 3 times a year in severe condition of health. Being hospitalized in one of Tashkent hospitals, she was treated for the whole month, taking a range of antibiotics and strong medications, such as prednisolone and hydrocortisone. These remedies were effective for short-term period, and in a day after she was discharged from the hospital, she experienced asthma attacks again. Upon examination, the girl received the treatment by using acupuncture in her ear auricle according to the elaborated technique to treat her bronchial asthma.

3 to 4 sessions received at the Republican Allergology Center, and the girl felt better. After 15 sessions of acupuncture the bronchial asthma attacks were relieved and she gained 1.5 kg.

Another girl named Y. Was known to be sick with the severe bronchial asthma since September 1978. She was thoroughly examined at the Republican Allergology Center to reveal she was hypersensitive to domestic dust and pillows dilled up with feathers. In late 1981 she had her

first acupuncture procedures. In the end of sessions she felt better and she could regularly attend school classes.

There are plenty of successful case studies. The Allergology Center commits to treat other allergic diseases apart from bronchial asthma, such as pollinosis and allergic itching dermatosis using special methods and acupuncture technique. The points located in the ear auricle are specifically distinguished against points located on other surfaces due to special peculiarities. The ear auricle points should be noted to be far more effective than corporal points. This can be explained as follow. The ear auricle is closely located to the brain that regulates the human body systems and organs, and which innervates five vital cerebral nerves, located in the ear auricle. Besides, the ear auricle is too rich in blood and lymphatic vessels. To the point, direct points of the central nervous system and those of the brain stem also locate in the ear auricle. It is a matter of fact that these points expand, and sometimes become tender when the disease exacerbates.

According to the thesis of scientific medicine of our times, the miracle reason of effectiveness of ear points lies in that the cerebrum, medulla oblongata, and brain stem are directly associated with the nervous fibers of the ear auricle.

Plum Blossom Technique

The **Plum Blossom Technique** is applied to cause therapeutic effect. The ancient practitioners stated that the human skin serves as the part of meridian system and is divided into 12 vital zones in accordance with location of 12 regular meridians.

"If you want to know about the skin zones – you'd better consider the routes of channels. This is the main rule for all channels" (The Inner Canon of Huangdi).

"The channel condition is reflected on the skin; this is why dermal zone is the outer part of channels" (the words of the well-known Chinese practitioner of Myng Dynasty Chong Kang Nyak: 1368-1644).

Principal (lateral) meridians lie in the depth of muscle tissues; as for their transversal branches, they relate to the relevant dermal zones in the way, that 12 dermal zones relate to 12 regular meridians, whereas every dermal zone is associated with its meridian and with the relevant internal organ.

"The skin is the part of channel system", and therefore, when the "outer pathological energy penetrates into the skin, the pores enlarge. The pathogenic energy invades at the beginning of regular channel branches. Upon filling branches, this energy runs deeper, to principal channels" (The Inner Canon of Huangdi). Thus, the pathogenic energy invades into the cutaneous regions, first of all, permeating into the meridians through it, laying routes to the internal organs. On the other hand, the diseased internal organs can be easily identified by the changes on the skin through which the channels and collaterals flow. Such various pathological reactions as tender zones, b-points, ailing itch, change of skin color, etc. evidence on pathogenic factor in the body. Consequently, there is a close relation between the cutaneous region and Zang-Fu internal organs, and the pathogenic factors may get transmitted from the exterior to the interior of the body and vice versa.

Tapping on certain superficial points with the plum blossom needle over meridians that link particular cutaneous regions with particular internal organs, we cause the effect onto the body, regulating circulation of qi and blood flow, normalizing all energy types, harmonizing Yin and Yang balance, intensifying the body resistance, eliminating diseases or treating disorders.

Plum Blossom needle consists of three parts: the handle, the head to inlay needles, the disc with 5-7 small needles fixed with the purpose to bring the therapeutic effect.

This technique refers to the physical factors of skin receptors excitation similar to the superficial acupuncture technique.

When practicing the plum blossom technique with the superficial treatment of points onto the body (Mei-Hua-Cheng) the following factors are considered:

Objective: impact force; speed of tapotement onto the particular cutaneous region; the excitation area (back, abdomen, extremities, etc.); the stimulation area.

Subjective: age; sex; disease; type of the nervous system and a person's character; the mood of the patient and the procedure time.

These factors specify the stimulation intensity on the whole, which, in its turn, can be classified into four relative forms.

1. Slight tapping – the force of tapping should be of such intensity that the patient does not feel the pain and does not pay attention at the procedure performed. In general, such procedure is endured with pleasure.

2. **Medium tapping (stimulation)** – the patient feels a mild pain during the procedure but it is well tolerated. As soon as the session ends, the pain resolves and the local area appears red and swollen slightly.

3. **Heavy tapping** – during the procedure the patient clearly experiences pain but it is well tolerated. Some patients feel some fear before every tapping with plum blossom needle.

4. **Too heavy tapping** – during the procedure the patient hardly endures the pain. Sometimes the patient can faint or ask to stop the procedure. The light and medium tapping are usually used in practice at a rate of about 100-150 taps per minute with 1 to 2 taps per second.

There are four types of tapping

1. **General tapping.** This is done with the purpose to create the condition for the further specific treatment. Tapping is applied over the vertebral column on the back from the I thoracic vertebra to the sacrum (including the sacrum) along two so-called branches of the Bladder Meridian (respectively 20-40 cun from the median line). Tapping is applied from top downward, on the left side first, and then on the right side. Taps are done on the level of intervertebral junction. One tap to the relevant area makes the slight tapping, two taps – medium tapping. General tapping takes about 3 to 4 minutes (the whole procedure takes about 20 minutes).

2. **Medium intensity tapping** along Zakharyin-Deg zones in compliance with the affected internal organ.

3. **Combined tapping**, that delivers the effect to the trigger points and Zakharyin-Deg reflex zones (for example, the area of hypochondrium with cholecystitis and to the back area – to the level of VI-IX vertebrae, as well as to the shoulder girdle).

4. **Additional tapping** is applied to relieve any adverse effects (insomnia developed with any particular disease).

With the purpose to make a tapping with a plum blossom needle the practitioner should be aware of basic lines and meridians to tap in different body zones. The technique of superficial tapping (similar to the mechanism of percussion) beneficially effects the functions of affected Zang-Fu organs. Here the priority significance is the stimulation (tapping) of painful nerves in the derma which facilitates improvement of

hormonal, endocrine and immune-biological properties of the organism. The plum blossom needling can be combined with other reflexotherapy techniques.

Contraindications:

- Immediately after meal
- With alcohol intake
- In fasting condition
- during abundant diaphoresis
- during pregnancy
- over sores and pustules on the skin

Therefore, Plum Blossom needling therapy, along with acupuncture procedures, is one of the effective therapy techniques to treat chronic, recurrent, severe forms of allergic diseases of the skin.

Aeroionotherapy and respiratory gymnastics

Have you ever thought of the rule to be in the air more often? The point is that in the environment (especially, in the air at mountains or the sea) there are lots of "atmosphere vitamins" and we drastically need fresh air at home. These vitamins known to have no odor or taste come as negative air ions.

The specialist in our clinic use the special device along with the respiratory gymnastics to treat allergosis, as well as bronchial asthma, nasal allergy, conjunctivitis, generalized rash, Quincke's edema and other allergic reactions. We are proud to report on highly effective results, as a rule.

Respiratory gymnastics Tai Chi Chuan

The respiratory gymnastics is widely used to treat all kinds of allergic diseases, respiratory allergosis and bronchial asthma, as well.

Magnetotherapy and electrophoresis are also used extensively in management of patients with respiratory allergosis and bronchial asthma applying drug-free techniques.

A.L. Chizhevsky revealed the healthsome effect of such techniques on the organism and, generally speaking, he invented the "vitamin mechanism", the so-called Chizhevsky Chandelier (an air ionizer). This is the system that produces static electricity from air. This treatment technique was introduced to the Allergology Center in 2000 and since then the Air-ionizer widely contributes to treating all allergic diseases, among other features of the device, in the daily practice of the clinic.

The specialists of the Center elaborated the specific respiratory gymnastics by the Tai Chi Chuan methodology which is to be performed after the session of Chizhevsky Chandelier therapy.

The ancient Dao scholars perceived love, food and physical load as three basics that support vital functions of the organism. Longevity highly relies on the stability of these three anchors. When we breathe, we absorb Qi in the pure form from air; when we eat, we absorb the nourishing Qi from food as nourishing elements. Despite the health condition may be improved in practicing Dao methodology, but the other two longevity pillars - food and physical load, especially respiratory gymnastics, - should be paid exceptional attention, either. The men can stay healthy by keeping his qi by doing particular physical activity to avoid stagnation processes. Qi is not kept in the body for all time, it steadily circulates along the body, as well as blood and most pathological conditions occur when there are some blocks or stagnation or wrong circulation of Qi.

Perfect breathing

Perfect breathing is the science itself that goes beyond the purpose of this book. According to the ancient and modern Dao schools, the breath, or human qi (pronounced as chi'-) is one of the vital energy that gets nourishment and circulates in the body thanks to breathing, eating and doing physical exercises. This is the apparent breathing show, though there is another, that is invisible, function of respiration. By breathing the human is involved in the invisible cosmic power of the Universe. Scientists and investigators based in the advanced West confirmed lately that lung is not just the organ for gas exchange in the blood.

Some people may think that Daoism adherents too strongly emphasize the meaning of the perfect breathing, though actually we never do it in the sufficient manner. We could not just survive without Qi, as breath. This is essential for our physical condition, as well as for the mind. For example, perfect abdominal breathing (diaphragmatic respiration)

is the fundamental conception for all kinds of meditation. This is also substantial for the Dao medical therapy. This Dao medical practice was revived in China to be perceived as too beneficial to treat gastrointestinal disorders. Deep breathing lies at the root of the good health condition. This is simple and cost-efficient way to acquire health and strength. There are three substantial rules that help you breathe accordingly:

- keep good body posture with the natural position of the chest;
- learn how to breathe and breathe out with the diaphragm and nose only. Do not breathe with mouth open;
- First of all, exhale all air from the lungs gradually, and then get them emptied with the last effort to contract the diaphragm. Then make a breath cautiously expanding the diaphragm to the highest extent. And then breathe out again slowly, repeating whole process.

It is clear that it is not feasible to breathe in this way all the time, but you have to do it so, at least, several minutes a day to have the deep and slow diaphragmatic respiration natural even during the sleep.

Below are 10 very useful exercises that commit to improve your health state. The procedure starts with the session of 30 minutes and gradually the time increases to one hour. Every patient should strictly comply with three rules: first one is the deep breathing in and out only through the nose; the second - the respiration process should actively involve the rectus; the third rule - the respiration process should actively involve the muscles of the small pelvis along with the rectus.

Exercise 1. Stand still at the distance of 1-1.5m from the Chizhevsky chandelier and make a deep breathing in and out.

Exercise 2. The head is thrown back deeply breathing in, and take a straight position while breathing out. Cervical vertebra participate in such respiration process.

Exercise 3. The left side of intercostal muscles participates in respiration as follows: raise the left shoulder and put the head on it while breathing in deeply, when breathing out the shoulder is on its initial position and head is raised.

Exercise 4. The right side of intercostal muscles participates in respiration as follows: raise the right shoulder and put the head on it while breathing in deeply, when breathing out the shoulder is on its initial position and neck is raised.

Exercise 5. Chest intercostal muscles also participate in the respiration process. Raise both shoulders while deeply breathing in, with the head between them, and get shoulders back at the initial position with the deep breathing out.

Exercise 6. Put the right hand on the right side. While breathing in deeply, touch the floor with the fingertips of the left hand, and recover place deeply breathing out.

Exercise 7. Put the left hand on the right side. While breathing in deeply, touch the floor with the fingertips of the right hand, and recover place deeply breathing out.

Exercise 8. Put the right hand on the right side. Raise the left hand deeply breathing in and drop it down while breathing out.

Exercise 9. Put the left hand on the left side. Raise the right hand deeply breathing in and drop it down while breathing out.

Exercise 10. This exercise is done in standing position. Take a deep breath, raising both hands, and bend to the side of Chizhevsky chandelier. Recover your place while breathing out.

Magnetotherapy

Physiotherapy method is based on low-frequency alternating or continuous magnetic field action on body.

The magnetic field in the direction of the strong lines can be continuous or alternating, it generates in continuous or intermittent (pulse) mode at different frequencies. The magnetic field uprising between the north and south poles of magnet, can be homogeneous and inhomogeneous.

Experimental and clinical investigations revealed that low-frequency alternating or continuous magnetic field causes physical and chemical changes in tissues, presented as orientation of macromolecules of enzyme proteins in the direction of magnetic field lines, increasing the penetration of cell membranes, acceleration of oxidation-reduction reactions, increasing enzyme activity, tissue microcirculation. CNS is most sensitive to magnetic fields, especially the cerebral cortex, and hypothalamic areas where activation of metabolism takes place. It was observed functional changes in neural processes in the cerebral cortex, the nature of which depends on the mode of action: the impact of the magnetic field in the continuous mode strengthens the processes of inhibition, and impulse mode - stimulation processes. During the magnetic therapy using

alternating magnetic field the impulse conduction in motor fibers of peripheral nerves gets accelerated.

Under the action of magnetic therapy patients with hypertension may have reduced blood pressure, slow pulse; patients with coronary atherosclerosis, myocardial dystrophy - increased blood flow velocity, enhanced myocardial contractility. The magnetic field may effect as anti-inflammatory and analgesic action, reducing swelling in the tissues, changing electrolyte metabolism. Kinesis of blood clotting processes is reduced under their influence, there is normalization of glucocorticoid synthesis, stimulation of tissue regeneration and the improvement of their trophism (bone, cartilage tissue).

Indications

Magnetic therapy has been successfully applied in the field of clinical allergology with other non-medicinal therapy methods. We use it along with acupuncture in treating respiratory allergosis, bronchial asthma, polynosis, allergic itching dermatosis, also it can be used in arthropathy deformans, epicondylitis, heel bursitis in exacerbation period, rheumatoid arthritis of minimal and moderate active process, bone fractures with delayed consolidation.

Contraindications

Acute purulent affection diseases, neoplasms, acute disturbances of cerebral and coronary circulation, exertional angina and rest angina, cardiovascular deficiency II and III degree, hypertensive decease above Stage IIA, arterial hypertension, tendency to hemorrhage, diencephalic syndrome by atonic type, occupational contact with magnetic fields, pregnancy.

Electrophoresis

In recent decades, allergic diseases have become most significant, which tend to increase not only in the cities but also in rural area. Frequency of severe and rare forms of allergy has also increased.

Various nonspecific and specific treatment methods of allergic diseases have been successfully used in pediatrics. Also natural treatment methods are widely used: herbal medicine, physical therapy and so forth.

Physiotherapy procedures are of certain importance as they are directed to restore changes of body responsiveness and increase its compensatory capacities. Electrophoresis with various medication means (gstaglobulin, heparin, histamine and etc.) is widely used on the chest. However, along with specific action of the corresponding medication direct current takes place, which stimulates the nerve endings and causes stimulation of subcortical formations, which results in nerve-reflector dislocations (shifts), to correct body functional systems activities. If electrophoresis is performed with the offensive allergens, then after penetrating the body, they accumulate as ion depot at the injection site, which creates the most favorable conditions for body adaptation to the injected allergen and processing blocking antibodies as a result of specific impact on the patient.

Electrophoretic method with allergen-specific immunotherapy allergens for lack of trauma may successfully be used for children both in hospital, and in specialized health centers (Southern Coast of Crimea, Elbrus, Shakhimardan Kosansay, etc.), where natural factors will potentiate therapeutic effect of such treatment.

These recommendations provide a methodology of electrophoresis specific treatment of non-bacterial allergens according to the degree of children's organism sensibilization and the period of flowering plants in different climatic conditions of Central Asia.

Allergen-specific immunotherapy with allergens by electrophoresis is performed when the following diseases: atopic bronchial asthma, polynosis, allergic rhinitis, pharinx tracheitis, bronchitis, urticaria fever, Quincke oedema, atopic dermatitis.

As other treatment methods, allergen-specific immunotherapy with allergens by electrophoresis has some contraindications, among which the most important are as follows: acerbation of main allergic diseases, acute intercurrent and infectious diseases, rheumatism, arthritis, neuropsychic illness, cardio-vascular system in the stage of decompensation, liver and kidneys disorders, and thyrotoxicosis, and other endocrine diseases,

diabetes, blood disorders, period after prophylactic immunization (1-2 months). The presence of chronic nidus of infection (chronic tonsillitis, sinusitis, pharyngitis) is also a contraindication for allergen-specific immunotherapy with electrophoretic allergens. In such cases, prescription of allergen-specific immunotherapy using electrophoresis is indicated based on individual peculiarities, taking into account the general condition of the child and upon preliminary sanitizing interventions.

Method of medical solutions preparation

For this purpose, sterile insulin vial is used, which is filled with 4.5 ml of extraction fluid. As for 10^{-1} dilution 0.5 ml of whole allergen it is taken and added to a vial containing 4.5 ml of extraction fluid. Then 0.5 ml of allergen is removed (with another syringe) from the mixture prepared and added to the vial with 4.5 ml of extraction fluid and so 10^{-2} dilution is prepared. Thus, you can make dilution up to 10^{-14} and more. Preparations of the therapeutic solution should be done in strict sterile conditions.

Determination of the initial (threshold) dose of allergen for treatment

For this purpose, allergometric titration is performed. For titration purposes, 0.02 ml of allergen is injected intradermally. Simultaneously two solutions for control are injected: extracted liquid (negative reactions control) and 0.01% - solution of histamine (positive reaction control).

Table 2
Evaluation of intradermal tests with non-contagious allergens

Reaction tagged	Indicator	Reaction appearance
Negative	-	The same as with the control
Suspicious	±	The blister resolves slower than in the control
Weak Positive	+	The blister 4-8 mm surrounded with hyperemia

Positive	++	The blister 8-12 mm surrounded with hyperemia
Strong Positive	+++	The blister 12-18 mm with pseudopodia and hyperemia surrounding the affected site
Too strong level of positive reaction	++++	The blister of over 18 mm with pseudopodia and hyperemia surrounding the affected site

Then 0.02 ml allergen of various dilution is injected intracutaneously in the inner surface of the forearm, for example, the allergen diluted at 10^{-9} , 10^{-8} , 10^{-7} , etc. is injected with the sensibilization to the allergen of house dust. The treatment starts with the dose diluted to obtain negative or weak positive result (+) using the scale described in the Guidelines "Specific diagnosis of allergy in pediatric patients" (N.I. Roshal, F.M. Yablokova, T.S. Sokolova, Moscow, 1980).

The scheme of allergen-specific immunotherapy procedure using electrophoresis technique with high sensibilization

Procedure days in consequence	Allergen potency	Allergen (ml)
1 st	1: 100 trn (10^{-14})	2.5
2 nd	1: 10 trn (10^{-13})	2.5
3 rd	1: 1 trn (10^{-12})	2.5
4 th	1: 100 bln (10^{-11})	2.5
5 th	1: 10 bln (10^{-10})	2.5
6 th	1: 1 bln (10^{-9})	2.5
8 th	1: 100 mln (10^{-8})	2.5
10 th	1: 100 mln (10^{-8})	2.5
12 th	1: 10 mln (10^{-7})	2.5
14 th	1: 10 mln (10^{-7})	2.5
16 th	1: 1 mln (10^{-6})	2.5
18 th	1: 1 mln (10^{-6})	2.5
20 th	1: 100 ths. (10^{-5})	2.5
22 th	1: 100 ths. (10^{-5})	2.5
24 th	1: 10 ths. (10^{-4})	2.5
26 th	1: 10 ths. (10^{-4})	2.5
28 th	1: 1000 (10^{-3})	2.5
30 th	1: 1000 (10^{-3})	2.5
32 nd	1: 100 (10^{-2})	2.5

34 th	1: 100 (10^{-2})	2.5
36 th	1: 10 (10^{-1})	2.5
38 th	1: 10 (10^{-1})	2.5

Due to climatic and geographical conditions typical to Central Asia, the seasonal treatment is recommended: dust-borne allergen – from November 20-25 to March 10-15; epidermal and household allergen – from June 1 to October 1 or annually. The treatment procedure is recommended to adapt to climate and geographic conditions if used in other CIS countries.

Treatment Approach

The allergen-specific immunotherapy (ASIT) is performed using the "Potok" equipment designed for electrophoresis using the specific allergen.

Even the most allergic individuals can tolerate the least amount of an allergen without symptoms manifested. The procedure starts with injection of the specific allergen from the cathode; 2-3 sheets of filter paper are soaked in the offending allergen solution (2.5 ml of allergen consumed per procedure). A child lies on the back (prone lying). The electrode is arranged in the interscapular area and the other one – in the area of gastrocnemius muscle. The current intensity, depending on the individual tolerance of the body, varies from 0.03 to 1mA/cm².

Procedures of 15-20 minutes in duration are applied every other day. Various schemes of Allergen-specific immunotherapy are recommended using electrophoresis due to the sensitiveness degree range to etiologic specific allergens.

Scheme 1. With the high degree of sensibilization one procedure session is applied per each dilution from 10^{-14} to 10^{-8} each. Six procedures in total are applied on a daily basis with two procedures per each dilution from 10^{-8} to 10^{-1} . In total 16 procedures are applied every other day. The whole course (total 22 procedures) takes 38-40 days. (Scheme)

Scheme 2. With the medium degree of sensibilization two procedures per each dilution from 10^{-7} to 10^{-1} each. 14 procedures in total are applied every other day. The whole treatment course takes 27-28 days. (Scheme)

Scheme 3. With the weak degree of sensibilization two procedures are applied per each dilution from 10^{-6} to 10^{-1} each. In total 10-12 procedures

are applied every other day. The treatment course takes 22-24 days. (Scheme)

Maintenance therapy (4 procedures) are performed with the last dilution of 10^{-1} . The first procedure (2.5 ml allergen consumption per procedure) is applied once a week, the second – once in two weeks, and the third – once in three weeks, and the fourth – once a month. The maintenance therapy is possible to perform in an outpatient condition. The duration of the course is 2 to 3 months.

The electrophoretic method of allergen-specific immunotherapy is recommended to perform within 3 years.

Evaluation of electrophoresis-based allergen-specific immunotherapy results

The treatment outcome is specified based on prospective follow-up, unbiased checkup and observations diary data recommended to keep for parents within 3 years. The perfect result is when the diseases symptoms are not manifested in the child within 3-6 months to 1 year. Good result is when the mild clinical signs appear in the child that does not require management with antihistamine and spasmolytic agents.

Scheme of application of electrophoresis-based allergen-specific immunotherapy with the medium degree of sensibilization

Procedure sequential days	Allergen dilution degree	Allergen (ml)
1 st	1: 10 mln (10^{-7})	2.5
3 rd	1: 10 mln (10^{-7})	2.5
5 th	1: 1 mln (10^{-6})	2.5
7 th	1: 1 mln (10^{-6})	2.5
9 th	1: 100 ths. (10^{-5})	2.5
11 th	1: 100 ths. (10^{-5})	2.5
13 th	1: 10 ths. (10^{-4})	2.5
15 th	1: 10 ths. (10^{-4})	2.5
17 th	1: 1000 (10^{-3})	2.5
19 th	1: 1000 (10^{-3})	2.5
21 st	1: 100 (10^{-2})	2.5
23 rd	1: 100 (10^{-2})	2.5
25 th	1: 10 (10^{-1})	2.5
27 th	1: 10 (10^{-1})	2.5

Scheme of application of electrophoresis-based allergen-specific immunotherapy with the weak degree of sensibilization

Procedure sequential days	Allergen dilution degree	Allergen (ml)
1 st	1: 1 mln (10^{-6})	2.5
3 rd	1: 1 mln (10^{-6})	2.5
5 th	1: 100 ths. (10^{-5})	2.5
7 th	1: 100 ths. (10^{-5})	2.5
9 th	1: 10 ths. (10^{-4})	2.5
11 th	1: 10 ths. (10^{-4})	2.5
13 th	1: 1000 (10^{-3})	2.5
15 th	1: 1000 (10^{-3})	2.5
17 th	1: 100 (10^{-2})	2.5
19 th	1: 100 (10^{-2})	2.5
21 st	1: 10 (10^{-1})	2.5
23 rd	1: 10 (10^{-1})	2.5

Satisfactory result: symptoms occur seldom upon the treatment and resolve upon administration of spasmolytic agents.

Poor result: symptoms are not resolved upon the treatment.

Some local adverse events may occur as redness with rash in cases of hypersensitivity of the skin to the current or allergen, though such events are rare to occur; in cases when local reaction emerge, the procedure is stopped for some time and as soon as symptoms resolve, the electrophoresis is applied again but with higher dilution of the allergen.

Children and adults with various forms of allergy who seek for medical help in our clinic receive step-by-step treatment up to the full recovery, that is, immune system rehabilitation.

Principles of immune system recovery include the following:

1. Immune system recovery is aimed to reactivate the damaged immune homeostasis in the body, that is reached in normalizing of immunological parameters and recovery of the sick person or remission of allergology process.

2. Indication conditions – adequacy of the diagnosis (basic and concurrent).

3. Commencement time of immune system recovery (since the moment the allergic pathology is identified).

4. Pattern – strictly individual.
5. Method of immune system recovery is differentiated, rational, complex, in combination of drug-free and medication therapies and allergen-specific immunotherapy.
6. Continuity and succession are absolute at all stages of immune system recovery.

Every subsequent stage of immune system recovery should be commenced with regard to results obtained at the previous stage.

Consequently, every patient with any particular allergic disease is treated for 3 to 7 years. Such approach to treat allergic diseases and bronchial asthma in particular, brings to positive effect in 90-95% cases.

The duration of every treatment regimen is 18 days with the certain interval specified as follows:

- Regimen I and II - 10 days
- Regimen II and III – 1 month
- Regimen III and IV – 3 months

The preventive treatment is performed upon completion of the Regimen IV every half a year.

The interval between the treatment regimens depends on individual tolerance and other features, which is considerably shortened for people with severe allergic diseases.

During the Regimen I all and any acute and severe clinical symptoms of allergic reactions resolve and the patient is wholly arranged for the dermal and provocation tests.

Tests to diagnose any allergy are performed upon all clinical signs resolve. In cases when the patient administers any antihistamine drug, the tests to diagnose allergology are performed in 25 days, and if the patient is on corticosteroid therapy, tests are done in 2-month period.

During the Regimen I, and Regimen II, if required, the combination treatment is applied, that is medication and non-medication therapy techniques are used.

Chapter 2

ALLERGIC ITCHING DERMATOSIS, ALLERGIC DERMATOSIS

Allergic itching dermatosis is the most common group of diseases in the structure of skin disease in childhood, caused by the anomaly of the constitution. This pathology manifests itself in the form of exudative diathesis. Unfortunately, due to the increase in allergic diseases according to neonatologists, almost every second child is born with different types of anomalies of constitution. Among them, exudative diathesis prevails. L.V. Luss (1998), while studying the prevalence of allergic dermatosis, found that allergic disease comprise 7 to 73%. It refers to both adults and children.

Among allergic skin diseases in children atopic dermatitis is one of the common problems, incidence of which, according to epidemiological studies, ranges from 17 to 25%. According to A.G. Shamova and et al. (2006), the prevalence rate of atopic dermatitis in different countries ranges from 1 to 30%. In the climatic conditions of Central Asia, allergic dermatosis is more common in children and ranks the third following the respiratory allergies and pollinosis, which is characterized by polymorphism, stage progression and development of associated pathological changes in various systems of the growing organism.

The results of the study of the allergic disease prevalence in children in some areas of Central Asia have shown that among the identified allergic diseases allergic dermatosis amounts 26.7%. Accordingly, before describing new methods of treatment, we'd better briefly discuss the clinical presentation of different types of allergic dermatitis (neurodermatitis, strophulus, eczema, allergic dermatitis, urticaria fever, Quincke's edema, Hebra's prurigo). As mentioned earlier, the basis of all allergic diseases is an anomaly of the constitution, i.e. diathesis.

Exudative diathesis

Exudative diathesis means "go out" in Latin. Major contributions in this problem investigation were made by M.S. Maslov, G.N. Speranski, J.F. Dombrovskaya, V.A. Tabolin and etc. It should be emphasized