

Acupuncture in Dermatology

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Acupuncture [from Latin *acus* (needle) and *punctio* (puncture)] is a part of traditional Chinese medicine and is arousing considerable interest in modern medicine.¹ During the last 30 years, acupuncture and related techniques have been introduced and put into practice in different regions of the world by most medical specialties, including dermatology. Interest is because of several factors: first, every physician is constantly looking for new methods to treat patients as the therapeutic possibilities of modern pharmaceutical science and industry are limited, and second, many modern drugs may have severe side effects. In addition, the excitement of patients toward acupuncture and related techniques is very great with the preference of undergoing therapy that may be free of side effects. The full denial of acupuncture, as indicated by a great many physicians is unfounded. The two medical systems—traditional Chinese medicine (TCM) and Western medicine—are not contraindicatory; to the contrary, they are as mutually complementary as Yin and Yang. Traditional Chinese medicine includes two mainstream treatments: (1) Methods of external irritation or external therapy (in Chinese *Wai Zhi*), including acupuncture, *Zhen* (puncture); burning, *Jiu* (warming), more widely known as moxibustion, cupping, massage, bath-therapy, gymnastics (*Qi Gong*, *Tai Chi Quan*), etc.; (2) Methods of internal therapy (in Chinese *Nei Zhi*)—diet, drugs (of plant or animal origin), mediating exercises, suggestive-magic exercises and influences.

Dermatologists should know the possibilities of methods for external therapy of TCM for treatment of various skin diseases. These methods are known to the Western audience mostly by the term acupuncture. Actually in dermatology the following methods are most often used.

- **Corporal Acupuncture:** Corporal acupuncture involves needling with metal needles on 365 known points, located on the so-called meridians (in Chinese *Jing Luo*, which should be taken as nerve-blood channel), established 171 points of all 600 described extra-meridian points (Ex-P), and another 110 the so-called “new points” (NP). The path of meridians on the human body are shown in Fig 1.
- **Auricle acupuncture:** The auricle is very richly innervated (Fig 2). The 130 points on the auricle evoke various changes in the functions of the human body. Auricle acupuncture is also very useful for rapid and unusually correct diagnosis, which is done by finding the pain sensitivity on the part of the auricle, corresponding to the particular organ or the system of the organism.
- **Electroacupuncture:** Electroacupuncture consists of electric stimulation using a light electric current with different frequencies. This is applied to the needles influencing the skin and underlying tissues in the region of the acupuncture point.
- **Electropuncture:** The effect is rendered directly with electric current by means of electrodes inserted into the acupuncture point. Here the effect is more superficial compared to electroacupuncture.
- **Moxibustion:** Cones are placed on the acupuncture point wormwood or the wormwood cigar is held at a distance (pecking method), which results in burning or warming of the skin up to 45°C (113°F). The main disadvantage of the burning, which limits its application in hospital environment, for its smoke and strong smell. After treatment sessions the room needs ventilation.
- **Acupressure:** Massage of the acupuncture points is probably the oldest of all possible techniques for the external treatment in traditional Chinese medicine. Unlike ordinary massage, it is done with rounded movements of the fingers over the acupuncture point and often leads to far better and faster results.
- **Cryopuncture:** cooling and slight freezing of the skin in the region of the acupuncture point and in this way thermoreceptors are influenced and nonspecific cryodestructive effect is obtained.
- **Medicamentous acupuncture:** drugs are injected in the given point, most often vitamins, phytoproducts, procain, etc.
- **Autohemopuncture:** The patient’s own blood is injected subcutaneously into the region of the point.
- **Apitherapy:** Bee honey is inserted, in the region of the acupuncture point on the skin.
- **Cupping:** Bars of different sizes are applied to the specific zone or on the point of the skin. One of the purposes, among others, is blood-letting, which is very widely used in the practice of traditional Chinese medicine.

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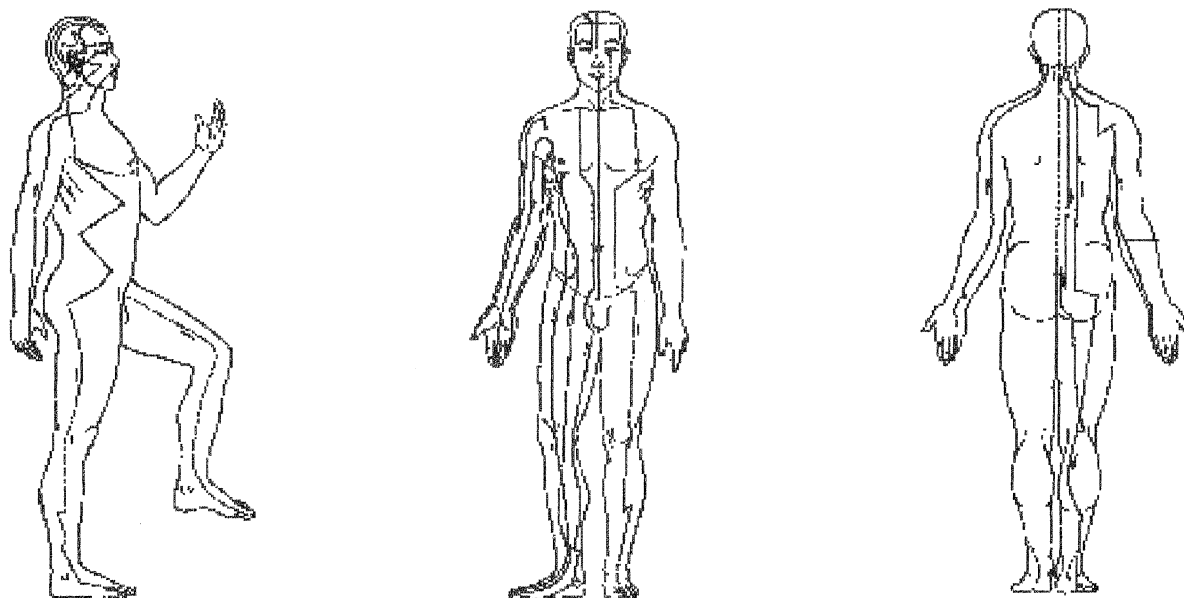
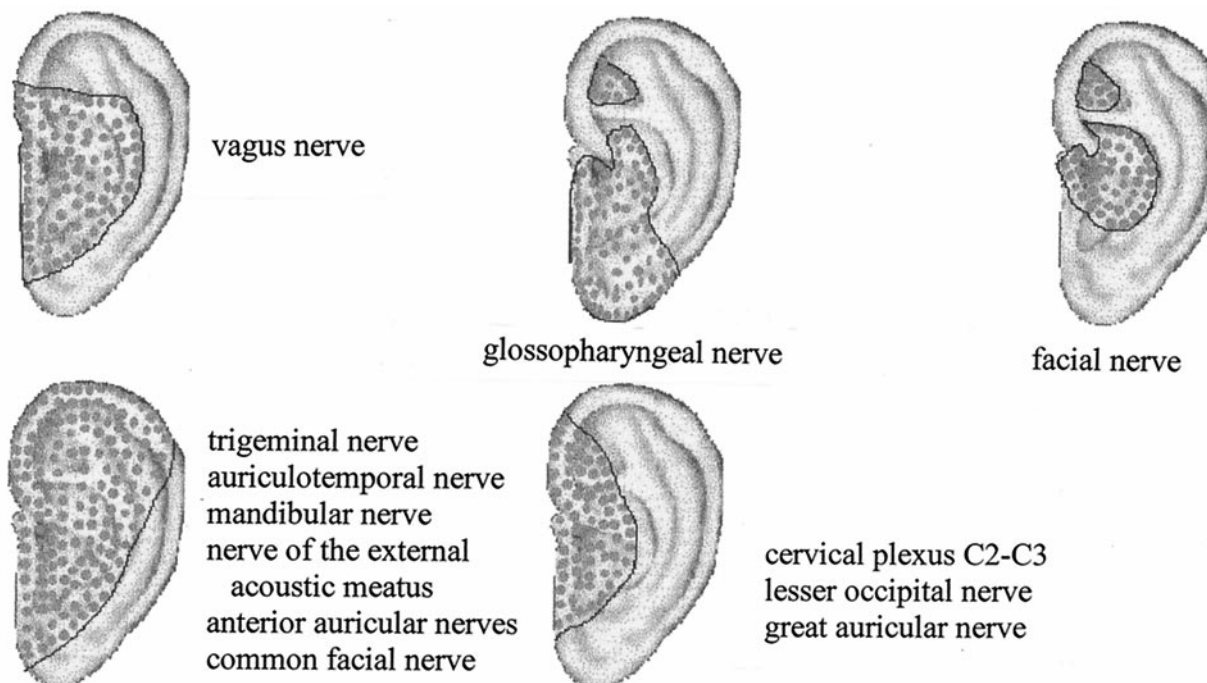


Figure 1. The path of meridians on the human body.

- Magnitopuncture: Acupuncture point is influenced by magnetic fields.
- Laser acupuncture: By contact or at distance, acupuncture points are irradiated with low-density laser from sources with different characteristics. Most often He-Ne lasers are used with wavelength 632.8 nm and diode lasers with wavelength from 780 to 904 nm.
- Other methods: Acupuncture points can be treated with ultraviolet (UV) rays, using microphofoelectrophoresis different drugs can be applied, etc.

Knowledge and correct application of all these methods allows the physician to achieve a far better treatment outcome in a range of diseases. Methods are often combined and thus their effect is multiplied. Acupuncture and related techniques need a longer treatment plan. Usually they are applied in sessions of 10–15 procedures, which are repeated at various intervals. This permits frequent contacts between the patient and his physician and contributes to better clinical observation of the disease and the physician's understanding of

Figure 2. Innervation of the ear.



the individual needs of the patient. This cannot be done during the usual short meetings between physician and patient.

Acupuncture can be learned and mastered by each and every dermatologist, who has the willingness and time to learn. In the Medical University in Sofia we have regular short-term teaching courses, where students learn the theoretical basics of acupuncture and basic needling techniques applied in dermatology. König and Wancura² describe the stage of learning acupuncture:

- Stage 1: We have no knowledge and apply needle “in locus dolendi.” Seldom is there some therapeutic effect.
- Stage 2: We have studied acupuncture for some time and have modern diagnosis according to the Western medicine. For treatment we use a ready-made combination of points, with superficial needling. Chances for therapeutic results are 50%.
- Stage 3: Besides modern medical diagnosis we know well the main rules of treatment according to the traditional Chinese medicine. We use deep and different needling techniques. We achieve very good treatment results, but still we have not mastered the fine points of traditional Chinese medicine, which we acquire in the next stage.
- Stage 4: Stage of mastering acupuncture, when we can use it as one very efficient prophylactic medicine, by mastering all diagnostic and therapeutic secrets of traditional Chinese medicine we could influence the patient’s constitution.

Acupuncture is a part of the defense mechanism of TCM. The defense system of the organism can be divided according to modern Western medicine to innate, natural, nonspecific resistance, and acquired, specific ones. Nonspecific resistance includes anatomic, physical, and chemical barriers, phagocytosis, mast cells, NK cells, complement system, etc. Specific resistance embodies B, T cells, and macrophages. Both systems should not be viewed separately, for they work in close cooperation and with other systems of the body such as the neuro-endocrine system.

The Chinese view of the defense system of the body relies on thousands of years of observation of the disease and health and on the holistic approach to the organism. Thus, man is placed in the field with counteracting powers of Yin and Yang. Their dynamic recreation and modification is the basis of the homeostasis and its disturbance is manifested as a disease. Shen is a spirit, a substance, unique to the human life, vitality behind Jing (the essence of the organic life) and Qi (the energy) (Fig 3).

The skin is made of different cellular strata with differences in potential between the internal and external cellular environment, which increase in the deeper layers. Electrical charges cannot shift the difference in

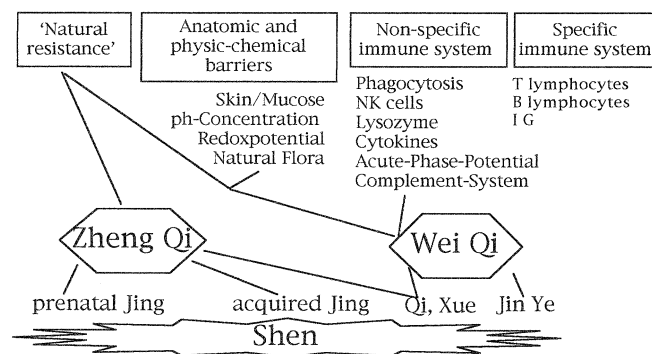


Figure 3. Possible correlation between defense concepts of Western medicine and TCM.

potential between the superficial and deep strata which is unchangeable. Implanting a metallic needle causes a short circuit producing an electrical charge which crosses various cutaneous strata, and so the nervous structures, ending there. Acupuncture gives best results in zones where there are large numbers of nerve fibers, whether in the form of free nerve endings or of venous or arterial periadventitial nerve plexus. The small diameter slow fibers, frequently nonmyelated, carry thermo-painful information. The larger fibers in contrast carry tactile pressure and intermediate thermal discrimination information. It has been shown that it is very important to activate the large diameter fibers in order to obtain effects from acupuncture. These large diameter fibers pass into the medulla. According to gate control theory, if information is carried by the large diameter fibers it will influence the transmission of painful information so long as it comes from the same dermatome. There is an interaction between the large and small diameter fibers. These are probably presynaptic actions by axo-axonic synapse, which limit the quantity of substance P liberated around the cell of Rolando's gelatinous substance. This sends an axon which crosses to the other side of the spinal cord and travels on toward the brain, forming the spino-thalamic tract. Only some of these spino-thalamic fibers go directly to the thalamus, most of them break off at the pons and medullary level to the reticular formation, so there are either spinothalamic direct fibers or spino-reticular-thalamic fibers. According to Veroux et al.³ the possible mechanisms of acupuncture action can be represented as shown in Fig 4.

Eckman⁴ hypothesized the relationship between acupuncture and recovery shown in Fig 5. As we can see, the role of the central nervous system (CNS) for acupuncture action cannot be over-emphasized.

The role of the CNS as main processor of signals from various sources of the organism and its relationship to the acupuncture stimulation has been researched by Pomeranz, representation of his conclusions is shown in Fig 6.

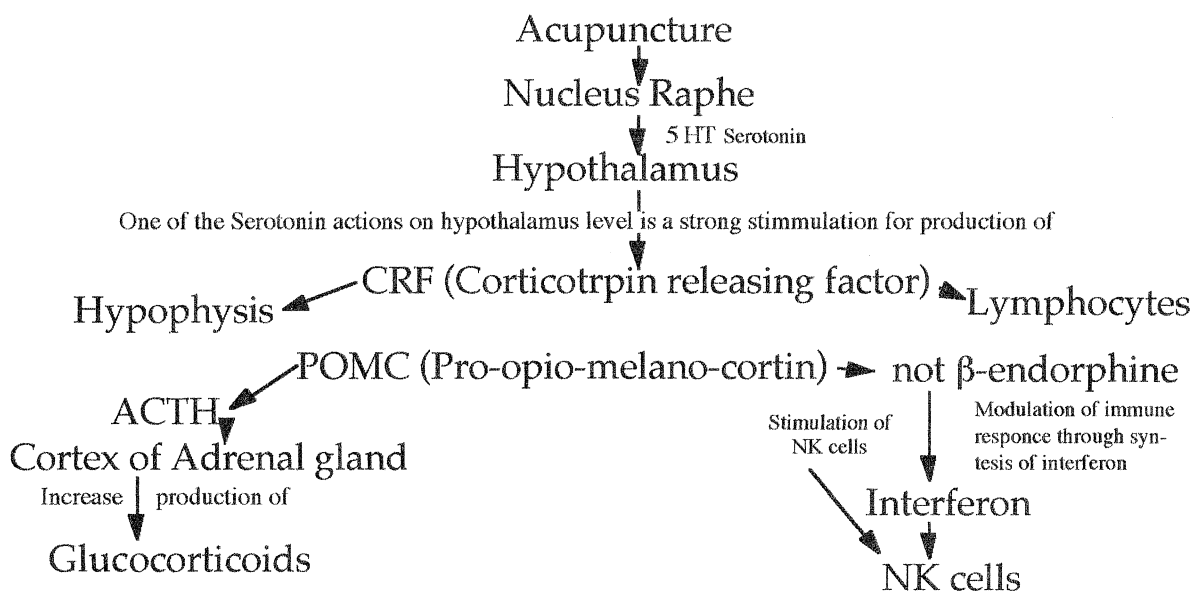


Figure 4. Possible mechanism of acupuncture immunomodulation.

During the stimulation of acupuncture points, three kinds of reaction occur: local, segmentary, and general. In such a way a range of organs and systems are influenced and the functional state of the organism changes.

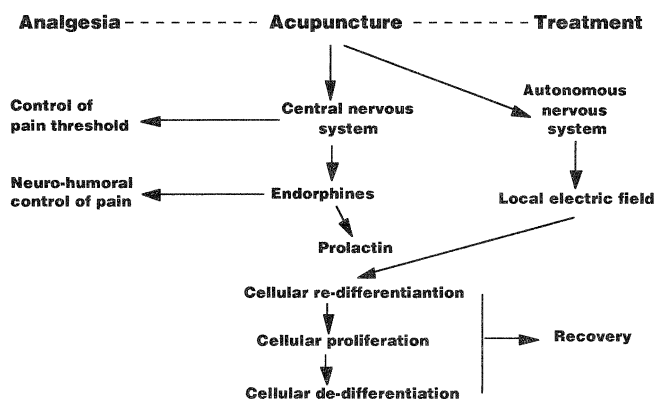
The local reaction is determined mostly by the mechanical stimulation of the various receptors, located in the skin, muscles, perineural and perivascular plexus. Local reaction is released through so-called axon reflex and is revealed through change of skin temperature, blood flow around the needle, and skin electric conduction. Segment reaction is displayed through the reflex changes in the functional state of the organs and tissues, which are in the range of innervation of the given segment of the spinal cord, connected with the skin region, where we apply acupuncture treatment.

General reaction is determined by the incoming flow of afferent impulses through the spinal cord and vegetative pathways to the CNS—brain stem, Formation reticularis, hypothalamus, structures of subcortex, and

cortex of hemisphere. Thus activation of cerebrum results and initiation of the complex neurohumoral and neurohormonal mechanisms. Changes are recorded in bioelectrical activity of brain, vegetative nerve system tonus, various hormonal changes are observed, mainly connected with stimulation of hypothalamus-hypophysis system and adrenal cortex. Correlation is changed in corticosteroids, catecholamines, ACTH, histamine, serotonin, and other hormones, mediators and active substances, which play important role for the regulation of physiologic functions and maintaining homeostasis. Dynamics of neurohumoral changes is dependent on the initial stage. Changes in the organism during the general reaction in most part have adaptation character and it is now generally accepted that they influence the neuro-endocrine-immune homeostasis and by balancing it the regulating and long-lasting effect of acupuncture is achieved. The possible location of acupuncture influence on neuro-endocrine and immune system are shown in Fig 7.

Our main task is to introduce briefly the possibilities of using acupuncture for several skin diseases and to create interest in some of them to start learning it and apply it in their everyday therapeutic and scientific practice. One of the main questions asked is for which diseases can acupuncture be applied successfully. In one of the standard recommendations of the state administration of traditional Chinese medicine of the PR of China named "Criteria of diagnosis and therapeutic effect of diseases and syndromes in traditional Chinese medicine" of 1994⁵ are presented 42 skin diseases, which can be successfully treated by traditional Chinese medicine methods. We have found more than 300 publications on thematic acupuncture and dermatology;

Figure 5. Representation of the effect of acupuncture.



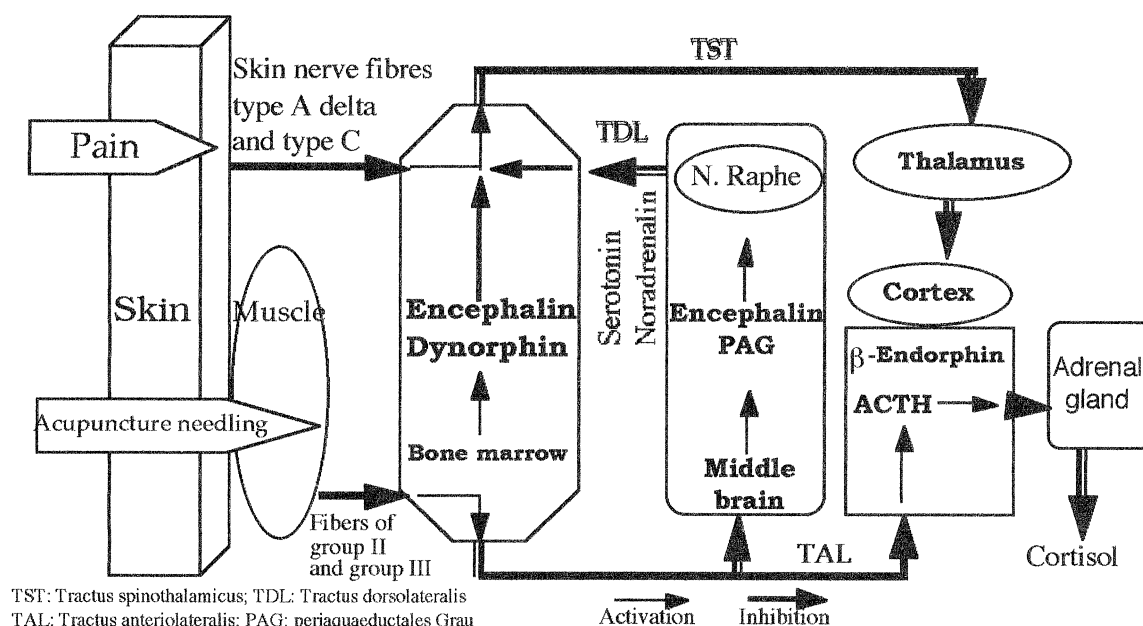


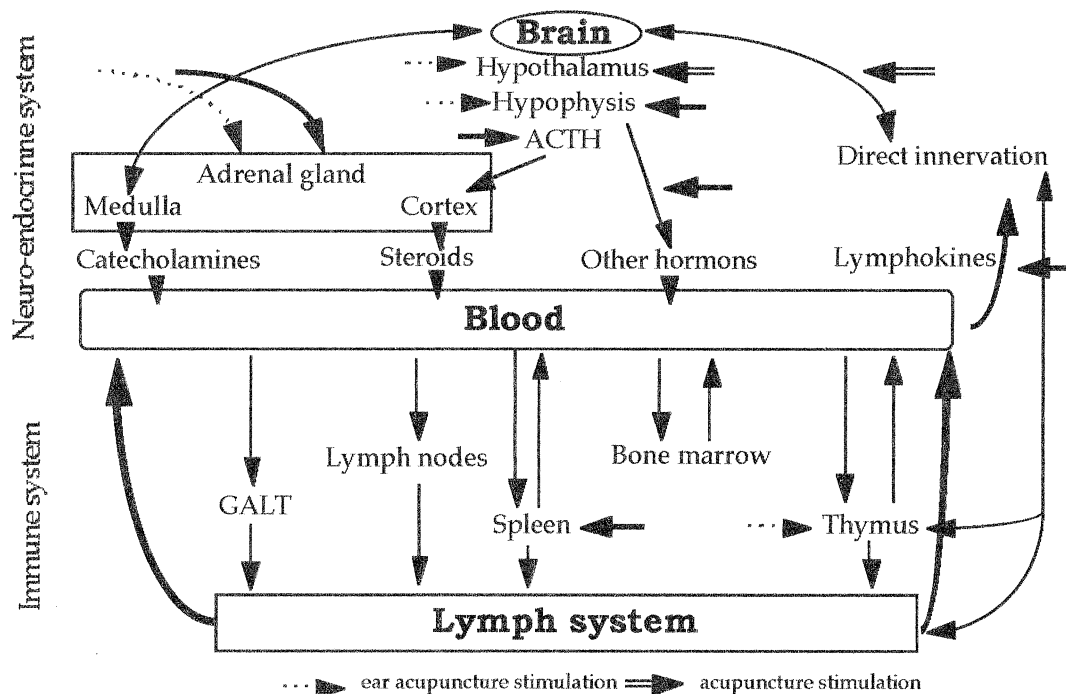
Figure 6. Possible model of neurophysiological and neuroendocrine mechanism of acupuncture.

unfortunately some of these papers are not up to our scientific standards. In the University Dermatology Clinic in Sofia we have been using acupuncture since 1976 and only those skin diseases where appropriate therapeutic results have been obtained will be presented.

Acupuncture is quite a safe method, almost totally free of side effects. Reported side effects of acupuncture include affecting cardio-vascular system (endocarditis,

thrombophlebitis, fainting hypotension), pulmonary (pneumothorax), nervous system (transverse myelopathy, spinal infection, lesion of the spine, epidural hematoma, grand mal seizure), infection (hepatitis, perichondritis, septicemia), allergic dermatitis, interference with other diseases.⁶ Considering the wide application of acupuncture around the world, the number of reported adverse side effects is surprisingly small. Moreover, most reported complications could have been avoided

Figure 7. Neuroendocrine-immune homeostasis and acupuncture stimulation.



had the practitioner had adequate education, skills, or taken proper action after the incident. There are several reports of acupuncture-induced endocarditis.^{7–9} Antibiotic prophylaxis is recommended for patients with valvular or other predisposition to endocarditis and use of semipermanent needles is contraindicated. Their presence for a week could pose a potential risk for infection.

Broken needles could pose a potentially serious problem such as cardiac tamponade and hemothorax.¹⁰ A thorough inspection of needles before initiating a procedure is sufficient for avoiding such a risk.

The only death after acupuncture treatment was reported in Norway¹¹ after needle insertion into CV17 (*Tan Zhong*). The patient had an abnormal congenital sternal foramen and the needle caused fatal cardiac tamponade. Anatomic knowledge and palpation of the potential risk area would have been sufficient for prevention of the accident.

A frequently observed side effect is pneumothorax.^{6,12–14} In most cases, the practitioner failed to take the appropriate action after the incident and in one case¹⁴ 5-cm long needles were inserted into the thoracic region which shows clear lack of anatomic knowledge.

There are reports of infectious disease transmission through acupuncture,^{15,16} but this results either from improper sterilization or improper handling of needles. In this respect it does not matter if one uses disposable needles or sterilized needles for multiple use, when the therapist is negligent in aseptic procedures.

Allergic dermatitis after acupuncture treatment is extremely rare.⁶ Contact dermatitis was reported after application of acupuncture with silver needles.¹⁷ Possible cause of allergy is zinc, contained in silver, needles, which are widely used in Japan.

Electroacupuncture is contraindicated in patients with pacemakers, as it may inhibit the device.¹⁸

In conclusion, most side effects can be avoided through proper application of sterilization techniques (both of needles and treated area), proper patient examination and monitoring, and adequate medical knowledge.

Acupuncture for Symptomatic Treatment in Dermatology

Patients present to the dermatologist where a symptomatic relief of pain and/or itch is necessary. The sensation of itch and pain has been related to activity of thin, unmyelated polymodal C-fiber units and certain substances released in the vicinity of the C-fibers can initiate the stimulus—notably histamine and prostaglandins.^{19,20} While several therapeutic procedures may relieve pain, the possibilities of alleviating itch are fewer and often insufficient.²¹ Transcutaneous electrical nerve stimulation and vibratory stimulation have been observed to control the experimentally induced itch and

pain.^{22,23} An alternative method by which alleviation of pain may be obtained is electroacupuncture.²⁴ The effect of acupuncture on experimentally induced itch was studied in healthy volunteers by Lundeborg et al.²⁵ Itching was induced by intradermal injections of histamine on the upper arm. “Placebo acupuncture,” acupuncture and electroacupuncture at 2 Hz or 80 Hz were applied over the injection site, proximal to the injection site (in the same dermatome), or extrasegmentally ipsilateral to the injected arm for a period of 5 minutes following induction of itch. In addition, the effect of a 5-minute period and a 20-minute period of stimulation of the skin prior to the induction of itch were studied. The same periods of stimulation were also applied to extrasegmental points prior to the induction of itch on the arm. Acupuncture and electroacupuncture (at 2 Hz and 80 Hz) significantly reduced subjective itch intensity when applied intrasegmentally. No significant effects were obtained when stimulation was applied extrasegmentally. The subjective nature of itch makes a placebo effect very possible. However, the finding of an optimal treatment mode argues for a placebo-independent mechanism. It is also of interest that a significant increase in the flare response was found when acupuncture stimulation was applied over the injection site. This might have been due to the additional effect of the local axon reflex often seen as a result of stimulation. The authors conclude that the acupuncture and related techniques could be tried in clinical conditions associated with pruritis.

Chiu et al.²⁶ describe a case of 54-year-old man undergoing renal dialysis who has an intractable pruritis that failed to respond to conventional treatment. Electroacupuncture on a daily basis has been performed at points Sp10 (*Zue Hai*), LI11 (*Qu Chi*), and St36 (*Zu San Li*) for a period of 45 days. Other points as GB34 (*Yang Ling Quan*), Sp6 (*San Yin Jiao*), and Sp9 (*Yin Lin Quan*) were occasionally used. The patient responded very well and was relieved of pruritus for 6 weeks and then a booster 5-week acupuncture session was done.

Liao et al.²⁷ randomly selected 263 patients receiving acupuncture treatment for pain problems. The major causes of pain were musculoskeletal problems. Of the entire group, 203 patients had some relief (86.4%). The correlation coefficient between patients' hypnotizability and their responses to acupuncture was 0.101 which was far below the 5% significance level of 0.468. The results show that acupuncture is not a form of hypnosis and it can be used successfully for pain relief in practice.

According to traditional Chinese medicine pruritus is called *Yang Zheng* (itching symptom) and is one of the most common symptoms in dermatological practice. It is caused mostly by the following pathological factors: wind, dampness, heat, dryness, and insect poison. The causes are differentiated as follows:

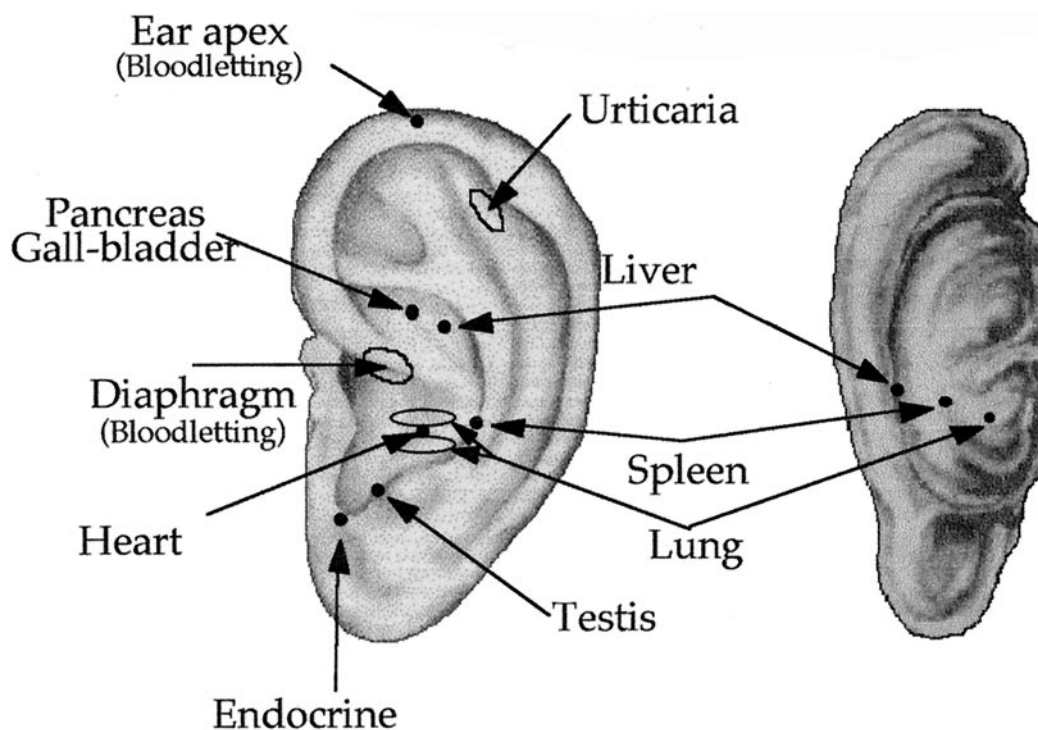


Figure 8. Ear acupuncture treatment of pruritis.

- Itching due to wind is often all over the body and/or very intense. It is characterized by sudden attack, quick development, irregular wandering with involvement of the whole body as in the case of urticaria.
- Itching due to dampness is mainly due to the pathological changes of dampness and is often accompanied by skin swelling, blister, exudation and erosion as in case of eczema or foot tinea.
- Itching due to heat is mainly caused by pathological changes of heat, often accompanied by inflammation, reddened skin, and burning sensation, as in case of acute dermatitis and eczema.
- Itching due to dryness is also known as Blood-Xue deficiency itching caused by deficiency of Blood-Xue, which in turn changes into Dryness of Blood-Xue. It is often accompanied by skin dryness, roughness, desquamation, and lichenoid changes as in neurodermatitis and chronic eczema.
- Itching due to insect poison is usually fixed but may also spread elsewhere. The affected area itches intensely as in case of scabies and tinea pedis.

Skin pain according to traditional Chinese medicine results mainly from stagnation of Qi and Blood-Xue and blockage of the channels. It is differentiated into the following types:

- Heat pain: The affected area shows inflammatory redness and the ache is alleviated when coming into contact with cold.
- Cold pain: The skin color is unchanged but the pain is alleviated when coming into contact with warm.
- Pain due to Blood-Xue stasis: The area is fixed and the skin color shows reddish brown or purple blue.

Most of the points we use for treatment of pain in dermatology are described in section herpes zoster.

Numbness is caused by deficiency of Qi and Blood-Xue and malnutrition of skin, due to blockade of channels and hindered flow of Qi and Blood-Xue. Skin has normal or slightly pale color. According to traditional Chinese medicine it is characterized as deficiency of Qi and Blood-Xue.

The most widely used points for pruritus are LI4 (*He Gu*), LI11 (*Qu Chi*), SP10 (*Xue Hai*), St36 (*Zu San Li*), CV2 (*Qu Gu*), GV1 (*Chang Qiang*), and in cases of localized pruritus local needling (the so called *A-Shi* points). Ear acupuncture is also very effective and the most effective points are those described in Fig 8.

Neurodermatitis and Atopic Dermatitis

These are among the most common diseases in dermatological practice and according to different authors compose from 1.5% to 30% of the usual number of dermatologic nosologic units.²⁸ The treatment of dermatitis in the last decades is considerably more successful especially in relation to clarifying etiologic and pathogenetic factors and the introduction corticosteroid therapy. Nevertheless most of the contemporary means

are chemical or biological products, which are effective, but in the long run could provoke serious side effects.

Acupuncture could be used successfully in the treatment of this disease when the choice of points and the methods of influence are suitable to individual particularities of the patient as an etiology and pathogenesis of different forms of dermatitis. Besides the classical acupuncture, the physician can use electroacupuncture, autoacuphemotherapy (subcutaneous injection of patient's own blood in the acupuncture points), radiating acupuncture's points with UV-ray, auriculotherapy, laser acupuncture, etc.

Brief Information for Dermatitis and Neurodermatitis

Eczema is an inflammatory reaction which arises under the influence of exogenous and endogenous factors and represents epidermodermatitis associated with hypersensitive reaction in the predisposed patients. The neurodermatitis or atopic dermatitis usually arises in early childhood in patients with familial or personal atopic burden (hereditary defective), has a chronic course with relapsing outbursts, and the full clinical picture is associated with specific localization, asthma, allergic rhinitis, and borderline behavior.

Etiology and Pathogenesis of Dermatitis

A large number of chemical substances, usually with low molecular weight, are haptens and after penetration into the epidermis covalently bind with proteins and are converted into antigens. The disease develops only if the skin has been sensitized in advance through preliminary contact with exogenous or hematogenous allergen.

According to traditional Chinese medicine, the dermatitis is caused by congenital defect and influence of some external morbid factors, as a Wind-Feng, Dampness-Shi, Heat-Re, and Dryness-Cao.

Acute and subacute dermatitis are provoked as a Wind-Feng and Dampness-Warm accumulate in the skin and the muscles and disturb normal circulation of the Blood-Xue which becomes "dry." Thus the balance between Yin and protective energy Wei Qi is disturbed. When these disturbances are more long-standing Yin and Blood-Xue diminish, the skin trophic is strongly disturbed, and clinical picture of chronic dermatitis appears. Schnorrenberger²⁹ describes the therapeutic principle for treatment of neurodermatitis as revival of the blood and to make the vessels recanalize Luo-meridians (in Chinese *Huo Xue Tong Luo*). In most of publications reporting good therapeutic results for treatment of dermatitis and neurodermatitis with acupuncture, prescription of herbal formulas and acupuncture points is strictly individual according to the patient's data. Particular attention must be paid to the skin cleaning as hot water and alkaline soap should not be used. In the majority of Chinese medical books special attention is

paid to the eating habits and use of fish and seafoods, beef, sheep, poultry, duck, goose, spices, and alcohol are not permitted. Our scientific data experience and tests indicate that very good curative results in the treatment of atopic dermatitis could be obtained when acupuncture is combined with a strictly followed special diet—no intake of all proteins of animal origin for a period about 2 years and systematic exercises with Qi Gong. As a basic cleaning means we utilize Bolus alba (white fuller's earth). Different Chinese literature sources in addition to diet and skin hygiene describe methods of external irritation (*Wai Zhi*) which could be beneficial: ear acupuncture, corporal acupuncture, moxibustion, pricking with bloodletting, followed by cupping, and so on.

Treatment with Acupuncture

Auriculotherapy

Our unpublished investigation of painful points on auricle in 248 patients suffering from atopic dermatitis (192 women and 56 men, aged from 5 to 58 years) indicated that among the most symptomatic points are those of the lung, adrenal, shen men, endocrine, occipital, allergy and respective of the affected anatomic zone (for example elbow, back, forearm etc.) (Fig 9).

Procedures were carried out three times a week for 30 days (the needles were left in for 60 minutes and every patient was treated 12 times). We obtained the following results: very good clinical improvement in 50 patients; improvement in 128 patients; poor influence in 65 patients; and without effect in 5 patients.

In all patients in which this treatment was not satisfactory and the leading symptom (itching) persisted, I have added electroacupuncture over the points sympathetic, shen men, brain system, and endocrinium, which resulted in controlling the symptoms to significant degree (Fig 9).

Babajanz et al.³⁰ also used the forehead, heart, brain stem, and located on the back of the ear three points to control allergy (see Fig 9). Generally very satisfying results of ear acupuncture application has occurred in the treatment of patients, suffering from neurodermatitis and eczema and only in cases where a long-term internal corticosteroid therapy has been applied before acupuncture treatment, the outcome was not good.³¹ The points are chosen adrenal, shen men, lung, sexuality (Fig 9). The selection is based on the changes in skin electroresistance of the auricle, possibly explained that those points have an antiallergic, hyposensitive or sedative effect.

Combined therapy of auricular and corporal points was used for a treatment of several neurological disorders in patients with chronic dermatologic disease.³² Under their observation 114 patients including 72 with atopic dermatitis, 5 with lichen planus, 21 with chronic dermatitis, and 6 with pruritus and 10 with psoriasis

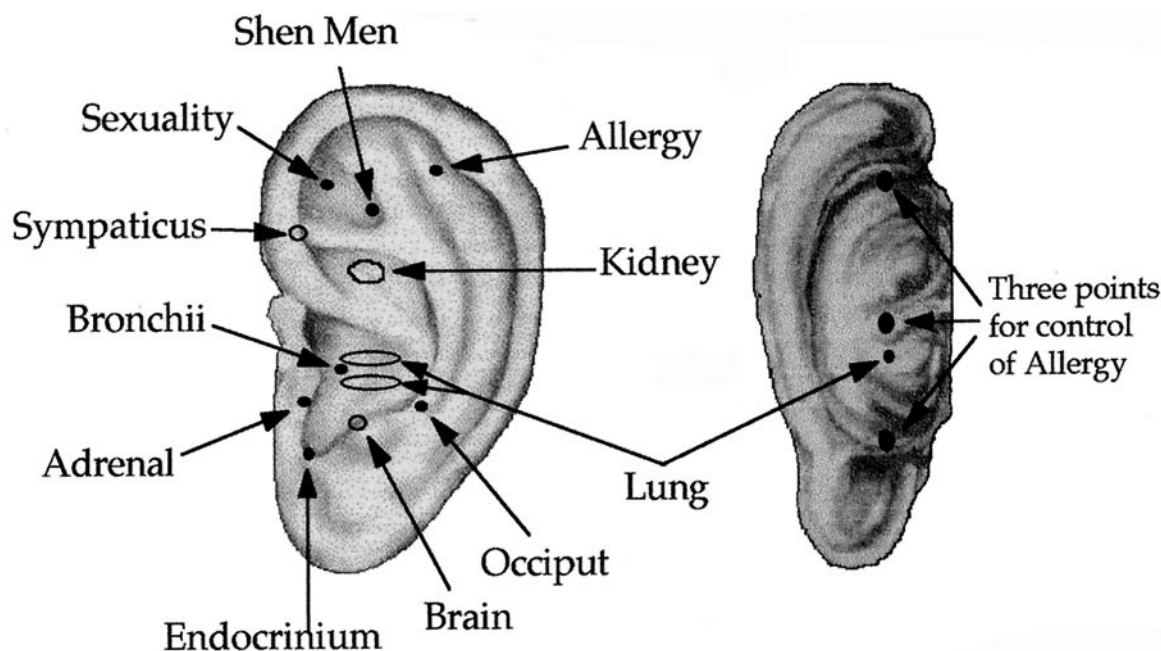


Figure 9. Ear acupuncture treatment of dermatitis.

vulgaris. Sixty-eight of these diseases have been treated with acupuncture, and in the remainings 46 patients different drugs were used (tranquilizers, antidepressants, etc.). Good curative results of acupuncture were obtained in 82% of patients after a 18–23-day treatment while in the drug-treated group the improvement of symptoms came more slowly (30–40 days) and in the same time different side events were registered in 14 patients. Ear acupuncture could be well combined with different methods of corporal acupuncture.

Classical Corporal Acupuncture

Two groups of patients suffering from different kinds of eczema were treated.³³ The first group of 34 was treated with external and internal medication and diet, and in the second group of 214 patients medical therapy and diet acupuncture was added in the following corporal points: LI4 (*He, Gil*), P6 (*Nei Guan*), Sp6 (*San Yin Jiao*), St36 (*Zu San Li*), GV24 (*Shen Ting*), and Ex-P 3 (*Yin Tan*). In the group of patients suffering from eczema verrum, the best effect was demonstrated using UV-radiation of acupuncture points, before treatment the skin was smeared with 1% water solution of eosin. For patients suffering from microbial eczema the best results were obtain by application of autohemotherapy—patient's own blood was injected in the acupuncture points. Ear acupuncture points treated were shen men, sympaticus, endocrine, and sexuality (Fig 9). The results indicate that the use of acupuncture has brought significant shortening of patients' stay in the hospital, diminished quantity of used drugs, and better results. The authors report also that various influence corporal

and ear acupuncture points results in different immunomodulating effects.

Several trial runs were done in order to understand the mechanism of action of acupuncture on neurodermatitis and eczema. For example Dokukina et al.³⁴ investigated the level of AMF, β -endorphin, ACTH, neurotensin, and somatostatin before and after therapy with acupuncture in 22 patients suffering of eczema and neurodermatitis. The results are shown in Table 1 below:

Corporal points used were L1 (*Zhong Fu*), L7 (*Lie Que*), St36 (*Zu San Li*), Sp6 (*San Yin Jiao*), Bl13 (*Fei Shu*), Lv14 (*Qi Men*) and in the ear: lung, kidney, and skin point.

The results show that acupuncture activates neuroendocrine system and influences particularly β -endorphins and ACTH.

Rumiantseva³⁵ treated 59 women suffering from

Table 1. Action of Acupuncture on Neurodermatitis and Eczema

Indicator	Control Group	Allergic Patients	
		Before Treatment	After Treatment
cAMF	10.16 \pm 1.96	42.06 \pm 2.48 $p < 0.001$	16.06 \pm 1.58 $p < 0.02$
Beta-endorphin	4.54 \pm 0.278	5.26 \pm 0.221 $p < 0.05$	2.25 \pm 0.14 $p < 0.001$
ACTH	40.58 \pm 2.74	121.15 \pm 16.0 $p < 0.001$	321.9 \pm 39.76 $p < 0.01$
Somatostatin	18.228 \pm 4.03	26.16 \pm 6.686 $p < 0.01$	25.82 \pm 2.99 $p < 0.01$

atopic dermatitis aged between 15 and 35 years with period of relapsing relating to the onset of menses, puberty, postdelivery, or breast feeding. Before, during, and after the treatment follicle stimulating hormone (LH), luteotropic hormone (LHT), 17β -estradiol, and progesterone were investigated. For control of hormonal parameters they used hormonal indicators of 25 healthy women volunteers of the same age. Before the start of the treatment was established the content of the following hormones in the blood diminished: estradiol 0.12 ± 0.01 nmol/l, in the healthy persons the level were 0.32 ± 0.03 nmol/l, luteinising hormone (LH) 5.93 ± 0.42 mMe/ml, in health— 16.1 ± 4.8 mMe/ml in the follicular period, and the progesterone, respectively 21.8 ± 1.4 and 71.5 ± 7.9 nmol/l in the luteinising period of menstrual cycle. After one course of acupuncture (10 procedures) in a corporal points: LI3 (*San Jian*), LI4 (*He Gu*), LI6 (*Di Li*), Sp8 (*Di Ji*), Sp9 (*Yin Ling Quan*), St28 (*Shui Dao*), BI31 (*Shang Liao*), BI34 (*Xia Liao*) and auricular points ovary and uterus showed a significant increase of luteinising hormone (LH) $p < 0.01$, luteotropin hormone (LTH) $p < 0.001$ and progesterone $p < 0.01$. The concentration of estradiol did not change after acupuncture treatment. Before the start of the next course of acupuncture significant increase of LH, LTH in the follicular period and FSH in the luteinising period ($p < 0.05$) was registered. After several courses of acupuncture nonsignificant increase of estradiol level began until it reached 0.16 ± 0.05 nmol/l. These data suggest primary stimulating action of acupuncture over hypothalamo-hypophyse system, that is on one of the central chain links of steroidogenesis and later increased level of GTH stimulates the functional activity of sex glands. Regulatory action of the acupuncture of these hormones is in symbiosis with clinical improvement of these patients.

Goncharov³⁶ reports treatment with acupuncture of 123 patients aged from 5 to 75 years, suffering from chronic, often relapsing forms of dermatitis. Before and after the treatment were examined levels of blood acetylcholine, the activity of acetylcholine esterase, the excretion of adrenaline and noradrenaline in the urine, the intensity of perspiration, activity of succinate dehydrogenase, as a concentration of circulating immune complexes, according to the methodology of V. Haskova. For treatment a combination of auricular and corporal acupuncture was used and in cases with intensive itching electroacupuncture was applied. Clinical improvement of the patients was accompanied with positive tendencies in the dynamics of indicators of vegetative nervous system and immunological reactivity of organism. For example in patients with acute period of dermatitis was observed predominance of parasympathetic processes and diminishing function of sympathico-adrenal system. With the onset of clinical relief, a normalization of cholinergical processes was estab-

lished. The concentration of acetylcholine from 1.65 ± 0.28 mmol/l before the treatment dropped to 0.63 ± 0.15 mmol/l after the treatment, while activity of acetylcholinesterase from 235 ± 35 mmol/l to 176.6 ± 22 mmol/l ($p < 0.05$). It is established that in the periods of exacerbation due to demonstrative vegetative disorders, sweating increased significantly. During relapse of the pathological processes there were demonstrated increased glycolytic activity to lymphocytes, which was normalized after clinical improvement of the patients. The content of circulating immune complexes before treatment was average 73.9 ± 7.5 UE, but after the treatment dropped to 63.9 ± 5.8 UE. The results suggest that the acupuncture has regulatory influence as well on vegetative nervous and immune reactivity.

Zhukova et al.³⁷ investigated functional state of peripheral circulation in 28 patients with neurodermatitis in the course of acupuncture treatment with needling only the point 3E5 (*Wai Guan*). It was determined that after 3 to 5 minutes after needling in 20 patients the temperature of the respective superior limb decreased by 1 to 2.5 degrees, but after 7 to 10 minutes after procedure the temperature decreased by 2 to 4 degrees. Further decrease of temperature within 60 minutes after needling was not recorded. The analysis of the rheovasographics data suggests that in 15 to 28 patients the tone of the trunk vessels to the arm increased while in 6 patients the tone decreased.

Zhukova et al.³⁸ investigated the dynamics of psycho-emotional state and particularities of personality in 48 patients of neurodermatitis, which were treated with corporal and auricular acupuncture. The authors established that in patients with neurodermatitis psycho-emotional disorders, characterized by demonstrativeness and anxious-depressive disorder were present. Acupuncture is an adequate method for treatment of this disease mainly influencing positively the psycho-emotional state of patients.

Gudzhbidze³⁹ successfully treated 152 patients with neurodermatitis and 39 patients suffering from dermatitis with combined therapy of corporal and auricular acupuncture. Depending on the localization of pathological changes and symptomatology, the author has used several of the following corporal points: L5 (*Chi Ze*), L7 (*Lie Que*), L9 (*Tai Yuan*), LI4 (*He Gu*), LI10 (*San Li*), LI11 (*Qu Chi*), LI20 (*Ying Xiang*), St25 (*Tian Shu*), St36 (*Zu San Li*), BI11 (*Da Zhu*), BI13 (*Fei Shu*), BI23 (*Shen Shu*), BI25 (*Da Chang Shu*), BI40 (*Wei Zhong*), K1 (*Yong Quan*), K6 (*Zhao Hai*), P4 (*Xi Men*), P5 (*Jian Shi*), P6 (*Nei Guan*), 3E4 (*Yang Chi*), 3E5 (*Wai Guan*), GB41 (*Zu Lin Qi*), Liv2 (*Xin Jian*), Liv6 (*Zong Du*), GV14 (*Da Zhui*), GV16 (*Feng Fu*), CV12 (*Zhong Wan*), and CV21 (*Xuan Ji*). In the auricle shen men, lung, bronchi, endocrinium, sympathicus, and allergy were treated (Fig 9).

Our own observations show that best results in the atopic dermatitis and eczema were obtained from com-

bined treatment with low intensive laser acupuncture over the corporal points and auricular acupuncture as points for every patient are strongly individual and are applied according to the diagnosis by palpable painfulness and the concrete symptomatology of the patient. The most widely used points are GV14 (*Da Zhui*) and LI11 (*Qu Chi*); they eliminate the heat and have strong immunomodulatory action. When the heat is extremely pronounced in the symptomatology we used also point BI40 (*Wei Zhong*). The point SP10 (*Xue Bai*) according to the theory of TCM “revives” and “clears” the blood, St36 (*Zu San Li*) strengthened Qi in the organism, SP6 (*San Yin Jiao*) is one of the most important immunomodulating points and influences elimination of Dampness-Shi. Point H7 (*Shen Men*) calms the emotions and acts as a vegetoregulator, GB20 (*Feng Chi*) is a basic point for elimination of the Wind-Feng, which is one of the main etiopathogenic factors of the diseases described above. With the similar effect is the points LI14 (*He Gu*). Often are used so-called A-Shi points—disposed in the center of the most expressed pathological changes in the skin. If we want to be particularly precise in the choice of an exact recipe of points for the treatment of individual patients, it is necessary to obtain detailed examination of the results of Western and traditional Chinese medicine. For the latter, pulse and tongue diagnosis are especially important. Western medicine approaches could be applied according to the traditional Chinese medicine diagnostic results, condition, and clinical picture of the disease. This is of particular importance for the success of acupuncture and must be understood very well by all practitioners of acupuncture, especially those with Western medical background.

According to our unpublished data the combined treatment with corporal and ear acupuncture in atopic dermatitis leads to 18% improvement compared to the application of corporal acupuncture alone.

Different acupuncture methods are particularly valuable when applied in early childhood. Sawatsugawa⁴⁰ reported good results from the application of combined corporal and auricular acupuncture in 14 children aged from 4 months to 8 years.

Nikitina et al.⁴¹ reported treatment of 50 children aged from 6 to 15 years with severe forms of neurodermatitis with auricular and corporal laser acupuncture with power 10 mV and continuing irradiation during every acupuncture procedure of 10 seconds by point.

Bukharovich and Bocharov⁴² added electroacupuncture to the general therapy in 23 children aged from 3 to 14 years suffering from atopic dermatitis and received very good effects of this combined therapy in comparison to when these children were treated only with general methods with antihistamine products, hypsensibilizing drugs, vitamins, and drugs for external use. Combined therapy has shortened the treatment

course from 5 to 12 days, significantly diminished the number and intensity of recidives, Rheovasography confirmed normalization of the functional vessel's state.

Blood-Letting and Cupping-Glass

Most often the blood-letting is from the back side of the ear with triangular needle. One or two drops of blood are drawn from the venules according to the patient's constitution and condition. The therapy is more efficient in older children and elderly. Moreover, with so-called seven stars hammer we treat certain regions of the skin until appearance of little blood “dew-drops” and then apply cupping.

Moxibustion

From the point of view of TCM there are some contraindications for the application of moxibustion, but in restricted forms of neurodermatitis and eczema moxibustion can be used with good results. The technique is used by “pecked method” where respective skin lesion is heated for 30 minutes daily from 7 to 10 days.

Lichen Planus

Lichen Planus (LP) is an extremely itchy, papulosquamous dermatosis which affects both sexes equally and can appear at any age.

The etiology of the disease is unclear, but clinical studies indicate that there are many pathogenic factors which can provoke the development of the disease. Frequently, we observe a combination of LP with autoimmune disease, metabolic diseases (diabetes, hypercholesterolemia, urolithiasis, etc.) and sometimes a genetic predisposition is apparent. The pathogenic factors can be classified into three groups:^{43–45}

1. Neuro-psychological and vegetative disturbances. Psychosocial stress, increased anxiety, exhaustion, etc. are frequently concomitant with the disease and may determine its course.
2. Infections, toxic and immunological disturbances. A viral etiology of LP has not been proven, but neither has it been rejected, taking into account the features of certain viral infections, the positive isomorphic phenomenon and several epidemiological studies (e.g., occurrence in families). A large group of medications, such as antimalarial drugs, heavy metals (gold, silver), arsenicals, penicillin, salicylates, etc. can provoke the emergence of lichen papules. This provocation is accompanied by immunological phenomena (usually of type IV) or by the blocking of sweat gland activity. Chemicals of a different nature, usually from the photographic industry, can cause lichen papules through type IV contact allergy mechanisms.
3. Genetic predisposition. This has been observed less frequently and is the object of contemporary studies,

Table 2. Methods of Treatment

Number of Patients	Pathogenic Factors	Acupuncture Points
42 (Group I)	Neuro-psychological and vegetative disturbances	GV20, GB20, BL13, HT7, PC6, SP6, ST36 Auricular points: Shen men, Liver, Subcortex, Heart
15 (Group 2)	Infections, toxic and immunological disturbances	GV20, BL13, BL17, BL20, L14, LI11, ST36, SP6, SP10, Auricular points: Spleen, Adrenal, Lung, Subcortex

but the results so far are contradictory and statistically flawed.

Of all the medications available to dermatological practice, the best therapeutic result is achieved with corticosteroids. In less severe forms frequently local application is sufficient, while in chronic disseminated forms and in those with erosion of the mucous membranes, long-term systemic steroid treatment may be necessary as well as intralesional therapy. In dermatology generally, but especially in severe forms of LP, it is important to use alternative therapeutic methods through which the hazardous side effects of long-term corticosteroid therapy can be avoided.

We have previously reported adequate results in the treatment of LP with helium-neon laser therapy, using laser acupuncture and direct irradiation of the skin lesions.

Bocharov et al.³¹ have used acupuncture to treat 18 patients with LP in a comparative study with 13 other patients treated with medications. Results show a faster effect on the subjective symptoms as well as on the rash in the group treated with acupuncture. The literature

also shows favorable results from the application of acupuncture in the treatment of skin itch. LP patients with neuro-psychological etiology often complain of severe itching. We found that electroacupuncture led to considerably better reduction in the itch than simple, manual acupuncture.

In 1994 we published a report⁴⁶ on the treatment over a period of 5 years of a group of 57 patients (31 women and 26 men) aged 21 to 63 years, mainly with disseminated and relatively severe forms of LP. According to their main, basic, pathogenic factors, patients were divided into two groups:

Group I: 42 patients with neuro-psychological and vegetative disturbances;

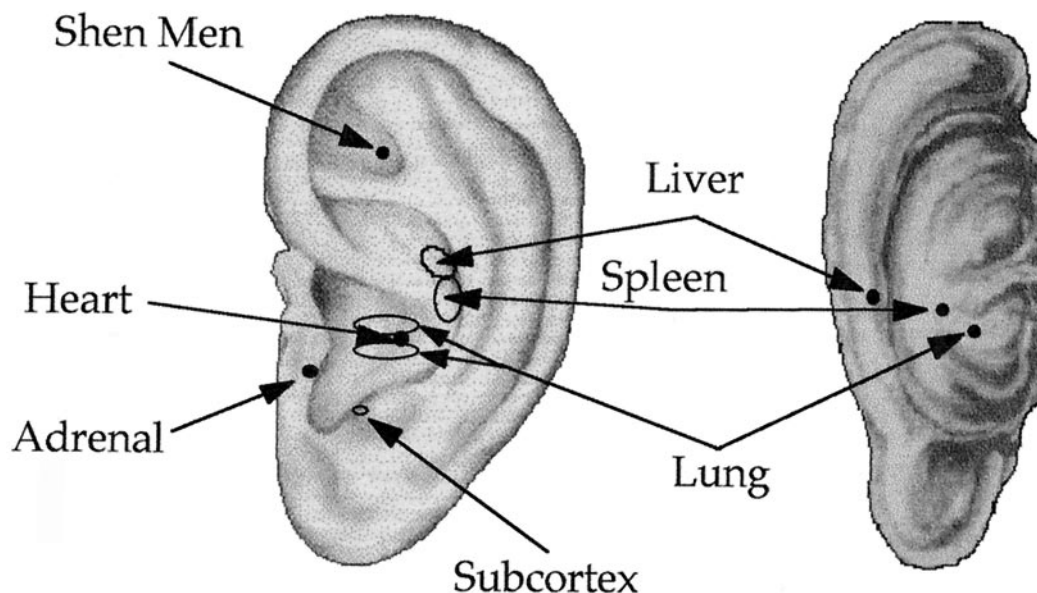
Group II: 15 patients with infections, toxic, and immunological disturbances.

We did not discover any familial cases of LP. The selection of acupuncture points was carried out in relation to the above classification (Table 2, Fig 10).

The treatments were carried out daily in the morning between 8 a.m. and 1 p.m. (except weekends). Each course of treatment involved 15 procedures of 30-minutes duration and courses were carried out 1 month apart. Patients with severe itch were treated with electroacupuncture to the needles at all the Group 1 acupuncture points for the first 5–7 treatment sessions. A Chinese electro-stimulator (model G6805) was used at a frequency of 8–12 Hz.

From the total of 57 patients 18 (31.6%) appeared cured after the first course of 15 treatments. The remaining 39 patients were given a second course of treatment 1 month later, by the end of which 49 (85.9%) of the

Figure 10. Ear acupuncture treatment of Lichen Planus.



original 57 patients obtained a full cure, 5 (8.8%) had some improvement, and 3 (5.3%) had no response.

In another study⁴⁷ we treated 35 patients (28 women and 7 men), aged between 18 and 60 years, suffering from various clinical forms of LP in which immunological disturbance had been noted. The timescale of the disease varied widely from 15 days to 10 years. Prior to and immediately after 15 sessions of acupuncture treatment, blood was taken to measure the following immunological parameters: IgG, IgA, IgM; C3 and C4 complement fractions; al-antitrypsin and a2-macroglobulin.

Acupuncture was carried out each morning for 30 minutes 5 days a week (weekends excluded) for 3 weeks on the following points: GV20 (*Bai Hui*), BL13 (*Fei Shu*), BI17 (*Qe Shu*) and B120 (*Pi Shu*), L14 (*He Gu*) and LI11 (*Qu Chi*), ST36 (*Zu San Li*), SP6 (*San Yin jiao*), and Sp10 (*Xue Hai*), and on the auricular points: spleen, adrenal gland, lungs, and subcortex.

The immunological parameters under study showed the following tendencies after acupuncture: IgG reached normal levels in 10 of 35 patients, IgA in 7, IgM in 5, C3 in 4, C4 in 2, al-antitrypsin in 9, and a2-macroglobulin in 5 of the 35 patients.

Concerning the dermatological condition of the patients, a very good therapeutic effect was obtained in 14 patients, a mild improvement in 15, and no effect in 6 patients. Itching, which is one of the main complaints of LP, was observed in a total of 29 subjects. It was completely controlled in 22, considerably reduced in 4, and in only in 3 of the cases no effect was observed.

Under the influence of acupuncture treatment I have not only achieved clinical improvement and recovery, but also a return toward normal immunological parameters. This may be regarded as evidence for an immunomodulating effect of acupuncture treatment.

A necessary condition, however, is the determination of each patient's pathogenic factors which have provoked the disease.

Psoriatic Erythroderma

Psoriasis is a frequent, chronic, and recurrent disease affecting both men and women of different age groups, and to a lesser degree, breastfed babies and infants. Family background could be found in many of the cases when studied carefully. The extensive genetic studies of this disease give grounds to assume the presence of genetic predisposition in all members of families among whom there were psoriatic patients, that is the existence of a general gene type. Psoriasis appears only under the influence of and in combination with unfavorable interior and exterior factors that determine the respective phenotype with various forms and severity morbid manifestations. In clinical practice the habitual triggering factors are infections, intoxications, stress, surgical interventions, also psychogenic elements, some endo-

crine diseases, and metabolic disturbances such as diabetes, etc. Among the exterior factors are solar irradiation, topically applied medical preparations, mechanical irritation, clothes, etc. Pathognomonic for psoriasis is the so-called isomorphic phenomenon—the appearance of rashes on the scratching sites of pricking, etc.

Treatment of psoriasis, especially that of the more severe generalized and arthropathic forms, requires analyses and elimination of all unfavorable noxi, proper nutrition, as well as internal and topical treatment.

For the past 15 years we have treated 38 severe cases of psoriatic erythroderma, most of them younger patients aged between 16 and 32 years.

Here I want to share our experience on the treatment of a severe case of erythrodermatitis in a young woman (Fig 11). The disease started immediately after birth and was manifested with generalized eruptions as a result of a surgical intervention, allergic shock following gamma-globulin injection, and treatment with antibiotics and corticosteroids.

The patient was born on April 9, 1967. This was the first pregnancy of her mother and the baby was born in term by a normal way. Three days after giving birth the mother noticed a small red knot on baby's body. It was removed surgically when the baby reached 3 months. A week later red plaques appeared and disappeared several times during early childhood. The eruptions initiated usually from the surgical cicatrices and dispersed all over the body, disappearing for several weeks or months.

At the age of 7, she received gamma globulin injections which resulted in scaly red spots. Treatment was carried out with injections and ointments and good results were obtained.

At the age of 11, the skin of the girl turned red again and was covered with dry scales. For this reason she was hospitalized on February 13, 1978 in the children's department of the Dermatological Clinic with the diagnosis of erythroderma ichthyosiform. The histological tests, however, showed psoriatic erythroderma (biopsy No. 30804 of February 17, 1978). During her stay in the hospital she underwent many routine clinical and paraclinical tests, the results of which were within the norms at the time of hospitalization.

In March of the same year the patient was treated with vitamins and intramuscular corticosteroid (i.m.). She developed lacunar angina with high fever. Antimicrobial therapy was added—first with Erythran, and later in a course of 3 days, doxycycline. Stomach aches and jaundice developed with clinical and paraclinical data for toxic hepatitis (liver tests were elevated). The erythrodermic complaints were also activated. Antimicrobial therapy was discontinued, and the patient received infusions with vitamins and glucose. A fast recovery followed, and the patient was discharged on March 31, 1978. Her treatment continued with topical



Figure 11. Erythrodermatitis in a woman before treatment.

corticosteroid, dispersed in a cold cream. Parenteral corticosteroid was administrated every 10–15 days.

In the following 3 years she had short remissions of psoriasis with relapses in August, September, and February. During the periods of relapses the liver tests showed elevation.

In December 1982 the patient had severe deterioration of her condition with a generalized pustular eruption (edema and blisters), pains in the joints, abundant hair loss, and high fever. Intramuscular corticosteroids were given again every 2–3 days. On December 13, 1982 the patient was subjected to acupuncture treatment combined with vitamins. All corticosteroids (internal and topical) were discontinued. Daily bath procedures were added to the treatment regimen. A bathtub was filled with water and 250 ml milk and 2–3 tablespoonfuls of olive oil were added. At the same time the patient consumed large quantities of fluids daily—about 3 ½ L litres: 2 L mineral water and 1 ½ L freshly squashed juices. Acupuncture procedures were carried out every day (Saturdays and Sundays excluded). Acupuncture was done on the following points: BL13 (*Fei Shu*), BL17 (*Ge Shu*), BL18 (*Gan Shu*), BL19 (*Dan Shu*), BL40 (*Wei Zhong*), LI11 (*Qu Chi*), Liv3 (*Tai Chong*), and Liv13 (*Zhang Men*). The auricular spots were: liver, spleen, adrenal gland, and the endocrine organ.

The patient also received injections with Aloe extract (1 ml. s.c. daily),—60 amp. total. During the first 15 days treatment included combined infusions of glucose and Vitamin C. Around the 20th day we observed a

considerable improvement, the exudative phenomena and desquamation disappeared, as well as the pains. After about a 3-week rest acupuncture treatment was renewed with 15 new procedures. The remission lasted about 4 years (Fig 12).

In September 1986 she developed an allergic eruption, asthmatic bouts, and rhinitis, and underwent tests at the Department of Allergy. The tests revealed allergic reactions to bacterial allergens with infections in the sinuses, bronchial and the urinary tract with *E. coli* in urine. The liver was slightly exaggerated and peccant. Tests on the subcortex were made in connection with the prolonged corticosteroid treatment. However, no considerable disturbances were established. A new course of acupuncture treatment was started, using the following points: BL2 (*Zan Zhu*), BL17 (*Ge Shu*), BL19 (*Dan Shu*), BL 40 (*Wei Zhong*), Liv3 (*Tai Chong*), Liv13 (*Zhang Men*), LI4 (*He Gu*), LI11 (*Qu Chi*), and Li20 (*Ying Xiang*).

The auricular spots of vegetative nervous system, liver, and subcortex were strongly painful.

The patient's condition improved considerably after two courses of 15 procedures each, with a 3-week rest between them. One month later the patient was considered clinically healthy.

In August 1990 the patient came to the clinic again with psoriatic rash covering two-thirds of her body: the skin was flushed and covered with small squamae. A new acupuncture course was initiated on: BL13 (*Fei Shu*), BL17 (*Ge Shu*), BL19 (*Dan Shu*), BL40 (*Wei Zhong*), GV14 (*Da Zhui*), Liv3 (*Tai Chong*), Liv13 (*Zhang Men*),

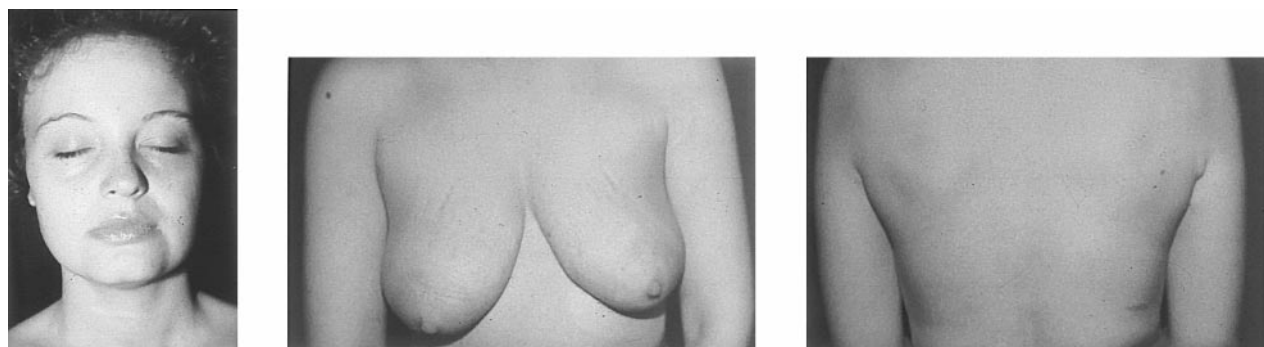


Figure 12. Erythrodermatitis patient (same as in Fig 11) after treatment.

LI11 (*Qu Chi*), and on the auriculae: liver, spleen, sub-cortex and the endocrine gland. Treatment with vitamins of the group B was applied, as well as a new course with Aloe sc 60 amps. Fifteen days later the patient's condition improved considerably and on the 26th day she was considered clinically healthy. Since then the patient has been under constant observation, and no deterioration has been seen. All the paraclinical tests did not show any deviations from the norm.

The favorable therapy was due to the combined complex therapy and acupuncture. It has shown that acupuncture contributed much to the regulating processes of a number of body functions. The observations of a long period of time on other similar cases with good therapeutical effect (unpublished data) give us ground to recommend acupuncture as a basic method in treatment of psoriatic erythrodermia combined with other drugs with milder and modulating action.

Contrary to our experience in treating psoriatic erythroderma, acupuncture treatment in chronic cases of psoriasis vulgaris does not seem very promising and literature data are sometimes conflicting.

Scleroderma

The disease affects limited parts of the skin. The onset is marked by appearance of lilac-red and mild edematous painless spots. Gradually their center becomes sclerotic with ivory color. The process continues up to the last sclero-atrophic stage when hyperpigmented, depigmented, and sometimes poikilodermic areas appear. Sclerodermic areas increase through enlarging of lilac ring around them. They are single or multiple, of different sizes, and located in different areas of the body. Predominantly women between 20–40 years old and children are affected.

The clinical variants of circumscribed scleroderma depend on size and form of the pathologic changes: scleroderma placata, guttata (disseminated form), linearis (on the fingers in form of constricted rings, on the children's front as a vertical line with appearance of blow sword) scleroderma "en coup de sabre." Clinical difference is dependent on the different depth of pathological pro-

cesses. Superficial forms are sometimes represented only with inflammatory lilac spots. Subcutaneous nodulare clinical variants rarer. In fast recovery often atrophic foci are developed. Generalized forms are the most severe, but they are rare. They are characterized with growth and fusion of the plates which in the end include large areas of the skin. The prognosis of mild forms is good. Spontaneous auto-heal is possible for a period of 1 to 5 years. Progressive, disseminated, and linear forms in the children require an active therapeutic intervention.

The etiology of this disease is unknown. Genetic, immunologic, hormonal, viruses, toxic, neurogenetic, and other factors are discussed without firm confirmation. Some authors²⁸ indicated the role of *Borrelia burgdorferi* as etiologic agent and in this way explain the relatively good influence of high doses of penicillin on scleroderma circumscripta. Acupuncture, electroacupuncture, and low-intensive laser therapy lead to improvement and cure in the most cases of scleroderma circumscripta.

From the point of view of traditional Chinese medicine, scleroderma is caused by the invasion into the skin of Cold-Han and Dampness-Shi, which accumulate in the interspace and hamper the circulation of the Blood-Xue and Energy-Qi, which congeal. They get blocked in the collaterals and the scleroderma lesions develop. Thus one of the most efficient methods of treatment is moxibustion. The method is as follows: the lesions are warmed with moxa for 20 minutes 2–3 times a week. Six procedures constitute one course of treatment. After a 1-week break a new course could be done.

Ear acupuncture is also a very effective method. Most often used points are lungs, occiput, endocranium, adrenal, spleen, and liver (Fig 13). Usually for every session we choose three to four of the most painful points and leave the needles in site for 30–60 minutes. One course consists of 10 sessions.

Corporal acupuncture is done in two groups of points: (1) General points: St36 (*Zu San Li*), Sp6 (*San Yin Jiao*), Sp9 (*Yin Ling Quan*), Sp10 (*Xue Bai*), B123 (*Shen Shu*), GB31 (*Feng Shi*), GV4 (*Ming Men*), and (2) Local

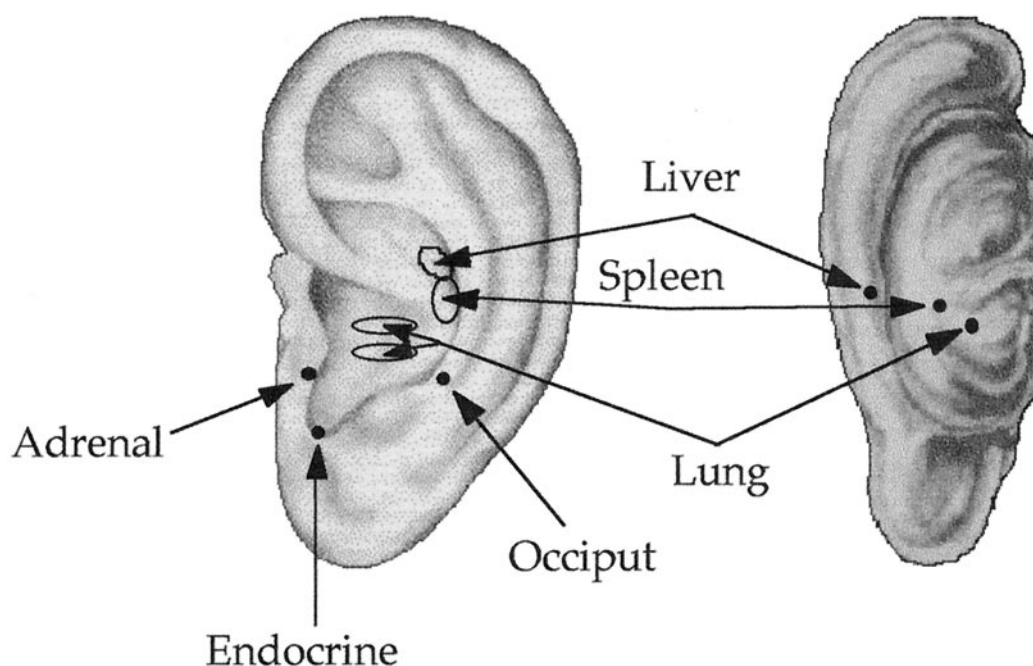


Figure 13. Ear acupuncture points for treatment of scleroderma circumscripta.

points: around the scleroderma lesions and we needle next to the margin of the lesion at every 4–5 cm, transversely or with electroacupuncture.

With daily session of 30 minutes, the positive change in the skin lesions could be observed after the thirtieth procedure and the full recovery usually comes in the end of the second course of 30 procedures, done after a 15-day break after the first course. We have treated 38 patients suffering from scleroderma circumscripta with this method, among them 2 children with “en coup de sabre” (our unpublished data). After the first 30-day sessions (no procedures on weekends) the full clinical recovery was noted in 12 patients, who have fallen ill during the last 6 months. On the 15th day after the finish of the first course clinical recovery was observed in another 2 patients. After the second course of 30 sessions, 14 more patients recovered and one of the children with “en coup de sabre.” The other child has improved his condition. During the control check-up after the sixth month, we recorded clinical recovery in 37 patients. Only in one 48-year-old woman the lesion persisted but she has been diagnosed with colon cancer and has been treated surgically and with chemotherapy.

Another unpublished study of ours of treatment of 27 women suffering from scleroderma circumscripta has shown that faster results are obtained by application of combined treatment with electroacupuncture and moxibustion. Six weeks after the start of the treatment (following 30 electroacupuncture and 18 moxibustion sessions) 19 patients have recovered. Thirty days

after the control check-up we observed the recovery in another three patients.

Smirnov⁴⁸ treated 69 patients with scleroderma circumscripta divided according to the stage of the disease as follows: 58, erythemo-indurative stage; 8, erythematous stage; and 3, atrophic phase.

The method of treatment was acupuncture points on meridians, which pass through the lesions and also have modulate immune and endocrine functions. Luo-points of these meridians were used, as well as local points, located in the immediate proximity to the pathological lesions. The needles were electrostimulated with impulse current with alternating of polarity with 20 Hz impulses, power of electricity 15–20 mA, and inverting the polarity through every 7 seconds. One course of treatment included 10 procedures daily.

To investigate the mechanism of action of acupuncture the author examined the parameters of curdling of blood by thromboelastography. Despite of the good therapeutic results with electroacupuncture in 66 patients, statistically significant changes were not established in the indexes of thromboembolastography.

Glavinskaia et al.⁴⁹ successfully treated 53 patients for scleroderma with electroacupuncture for stimulation of suppressed immunity. Before and after the treatment some immunological parameters were examined. Decrease of T-lymphocytes, hyper production of circulating immune complexes of IgA, IgM and antibodies toward the fixed lymphocytes were established and at the same time no change was recorded in the number of B-lymphocytes. The authors point to the correlation between the clinical improvement and the positive

change in part of the observed parameters of the immune homeostase.

Smirnov and Sidneev⁵⁰ treated 52 patients with scleroderma circumscripta (45 women and 7 men aged from 12 to 68 years) and checked the function of thyroid gland. For comparison 22 healthy persons aged from 22 to 40 years were studied. All of them were clinically studied and increased size of the gland from I to III degree was established in 25 persons (3 of them were diagnosed with thyrotoxicosis; 22, euthyroidic hyperplasia); and 27, were considered without abnormal deviations. Before and after the treatment with auricular and corporal acupuncture the following hormones were investigated: triiodothyronine (T3), thyroxine (T4), thyroxine binding of globulin (TBG), thyrotrop hormone (TTH), thyroglobulin (TG). The most expressed changes were in relation with the thyroglobulin level, in only two patients of a total of 42 was it within normal limits 5.36 ± 1.42 mg/l, while in the rest of the patients the level was elevated 25.7 ± 3.04 mg/l ($p < 0.001$ in comparison to the control group). In 35 of the patients statistical significant decrease of the level of triiodothyronine was registered T3, 1.38 ± 0.13 nmol/l, toward 1.86 ± 0.15 nmol/l in the control group and of thyroxine Ty, 95.13 ± 4.4 nmol/l in the group of ill patients and 111.15 ± 5.02 nmol/l in the control group. After application of three courses of acupuncture according to the original scheme (every course of 10 procedures) decreased level of TG and increased level of thyroxine T4 were determined.

The acupuncture was carried out according to the following scheme: in the first procedure points L7 (*Lie Que*), LI4 (*He Gu*), St36 (*Zu San Li*), and GB41 (*Zu Lin Qi*) were utilized, the needles were left for 30 minutes. From the second to fourth procedure tonic points of meridians were used which pass through the sclerodermic lesions and electroacupuncture was carried out with power of current 10 mA, impulse frequency 20 Hz, and change of polarity during 5 to 7 seconds.

At every following procedure the current power was increased by 5 mA. At the fifth procedure paravertebral points were utilized, which correspond to segments over the zone of pathologic changes of the skin. At 4th, 6th and 8th procedure points CV22 (*Tian Tu*) and auricular points hypothalamus and endocrine were needled without electrostimulation. The second course of therapy was carried out after about 30 days and the third after 2.5 to 4 months.

We do not have our own experience with treatment of scleroderma progresiva but during our literature survey we found this report which we believe is very interesting. We are including it here for reader's reference. Progressive systemic sclerosis (SP) is a rare disease. The incidence is higher in women, commonly after 30–40 years of age. This is a collagen disease, which

involves the skin and the internal organs. Progressive organ fibrosis and organ failure are the cause of death.

The skin changes progressively from an edematous phase to scleroatrophic, taut, immobile skin, involving face, the limbs or all skin of the body.

The pathogenesis remains unclear. ESR is raised and rheumatoid and antinuclear factors are usually present.

There is no widely accepted effective treatment for SP but certain drugs can provide relief of symptoms: penicillin, penicllamin, etc.

Maeda et al.⁵¹ tried acupuncture treatment with electrical stimulation for SP, which resulted in improvement in both clinical and laboratory data.

Thirty-four patients were treated, most of them were women aged 43.6 ± 12.8 years. Treatment periods ranged from 3 months to 9 years and 2 months. Thirty-minute electrical stimulation was applied between points Hatija, located between fingers, and Shohai on the clinically worse side of the elbow once or twice weekly for outpatients and 3–5 times weekly for inpatients.

Low-frequency electrical acupuncture had demonstrable effects especially upon cutaneous manifestation of SP. Various degrees of improvement were obtained not only in ulceration on the fingertips or toetips, cutaneous sclerosis, hypo- and hyperpigmentation, and sensory disturbances, but also in respiratory disturbance, plethysmography, capilloscopic findings in the nailfolds and histopathologic findings in the nailfolds and histopathologic features of the forearm.

The mechanism of the effect of low-frequency electroacupuncture on SP is still unknown.

These and other clinical trials and reports confirm that acupuncture and related techniques could be used widely for the treatment of scleroderma circumscripta.

Alopecia Areata

The name of this peculiar hair loss reflects its most marked morphological characteristic, falling out of the hair in rounded fields. The disease lesions are localized predominantly over the scalp and hairy parts of the beard, sometimes the eyebrows, the eyelashes, and other regions of the skin. Younger men and women are affected predominantly and more frequently between 20 and 40 years.

The skin in the patches of hair loss has a preserved structure, but in the most long standing extensive affected areas becomes atonic and of ivory color. The suspended growth of hair can be restored even after many years. The histopathological analysis shows peribulbar, predominantly T-lymphocyte inflammatory reaction, particularly in the earlier stage. The falling hairs in all forms of alopecia are dystrophic in the phase of anagen and telogen, lose their pigment and shine, divide in the terminal parts and break into pieces. The

nail's disorders are rarer. The nail's plats, predominantly of the hand's fingers, are with thin longitudinal split with dotted depressions and easy brittle.

Different authors²⁸ report various figures for the family character of the disease, from 4% to 20%. In our unpublished data carried out after catamnestic study of 7460 patients there is obvious family inconvenience in 516 cases (6.75%).

There are different classifications which summarize different clinical manifestations of alopecia areata. Some of them are based on contemporary genetic, immunologic, hormonal, microbiological, and other investigations. The attempts to isolate the total and generalized forms in separated nosological units is not justified based on clinical observations. There is often a combination of alopecia areata with focal disturbances in the hair growth and other diseases, especially focal infections, endocrine disturbances, hypertension in the parents, neurological and psychogenic disorders and many others, including malignancy, but a large part of patients with alopecia areata are completely normal persons.

Generally accepted on the base of accumulated clinical attempts are the following clinical forms of the disease:

- Alopecia areata in occipital and temporal regions of the scalp or with foci of beard's hair in males. This form is more common, milder, and usually transient, but often with relapsing course.
- Ofiasis celsi is distinguished with peripheral disposition of hairless regions of occipital or temporal part and the front which partially confluent in a unique belt. There are rounded patches in the other regions of the scalp.

Alopecia changes are resistant to treatment and this form in many cases can continue to complete hair loss.

Alopecia totalis and alopecia universalis are the most severe and resistant forms. In the total alopecia gradually but sometimes very quickly, dependent of the cause, which very often remain unknown, all the hair of the scalp falls and the skin in affected regions is atonic and pale. In these cases very often eyebrows and eyelashes fall out partially or completely. In alopecia universalis the hair of the entire body falls out including cuttis glabra.

The etiology and pathogenesis of this disease remains unknown. In the study by Skinner⁵² through polymerase chain reaction (PCR) a presence of genetic material of cytomegalovirus in the hair papilla and matrix with developed immunological answer is reported. In 1996 this constataion was rejected by other authors. The role of infectious agents in some cases of alopecia areata, especially in children, is indisputable. Resuming of hair growth is observed after removing of focal infection and cesation of relapses. In children with

high antistreptolysin titter the treatment with broad-spectrum antibiotics removes the baldness, parallel to diminished titter in the blood.

Autoimmune pathogenesis of disease is now researched very intensively but the results are controversial. Hair loss in autoimmune diseases, beneficial effect of cytotoxic treatment and a character of infiltration around hair papilla and matrix are pointed out as arguments in support of autoimmune pathogenesis. This kind of clinical observation is rare and has a casuistic character. Stress and psychotrauma often are cause factors for the appearance of different clinical forms of alopecia areata. For development of the disease, it is necessary that the same conflict situations have a constant nature and can exercise constant negative influence over certain persons (e.g., bad relations between family members, conflicts at school, labor conditions) and can often provoke this condition. The genetic predisposition is an essential prerequisite for development of alopecia areata. The patients are nervous, restless, very sensitive, psycholabile with vegetative disorders. Psychological trauma is often a provocative factor for the appearance of total forms of alopecia. Removal of the psychic traumatic process determines the recovery (e.g., total alopecia in two children saved from drowning, in children and young people after family scandals, etc.). Endocrine diseases play an important role in the pathogenesis of some predominantly total and universal forms which cannot be influenced by treatment. Associations of alopecia areata with different endocrine diseases are described in the literature.^{53,54}

Traditional Chinese medicine designates alopecia areata as *You Feng*, in translation, glossy wind. It is provoked by Blood-Xue deficiency and Dryness due to the Wind of Kidney. Four primary cases of hair loss are identified:

1. Blood heat giving rise to wind. The source of this pattern is often emotional stimulation that leads to exuberant heart fire. Heat then enters the blood, with blood heat giving rise to wind, and movement of wind causing hair loss.
2. Deficiency of Yin and Blood. This pattern is usually caused by a pre-existing deficiency of the kidney. If kidney Yin is deficient, essence does not transform into Blood-Xue. Because hair is the surplus of Blood-Xue, if the Blood-Xue is deficient, nourishment of the hair is comprised, and hair loss ensues. Deficiency of Yin and Blood-Xue can also result from general deficiency, which leads to loosening of the tissue interstices. When sweating occurs in the presence of wind in such a condition, wind easily enters the body. Overabundance of wind gives rise to Blood-Xue dryness, and ultimately to deficient Yin and Blood-Xue, so that the hair loses its source of nourishment (the Blood-Xue) and hair loss is the result.

Table 3. Results of Auricular Diagnosis in 207 Alopecia Areata Patients

Main Sensitive Auricular Points Examined	Number of Patients (%)
Endocrine system	214 (79.26)
Shen men	207 (76.67)
Neurasthenia	206 (76.30)
Adrenal gland	199 (73.70)
Interferon point	180 (66.67)
Gray substance	178 (65.92)
Immune system 2	162 (60.00)
Immune system 1	154 (57.03)
Thyroid gland	139 (51.48)
Kidney	120 (44.44)
Lung	118 (43.70)
Heart	103 (38.14)
Vegetative system	96 (35.55)
Liver	88 (32.59)
Tai Yang	71 (26.29)
Colon	49 (18.14)
Allergy	41 (15.18)
Ovary	35 (12.96)

3. Deficiency of Qi and Blood-Xue. Hair loss after long-term illness or during the puerperium is caused by temporary deficiency of Qi and Blood-Xue, such that the hair loses nourishment, resulting in its loss.
4. Blood-Xue stasis. When long-term Blood-Xue stasis exists under the skin and outside the tissues, the vessels and channels are blocked so that new Blood-Xue is unable to reach and nourish the hair loss.

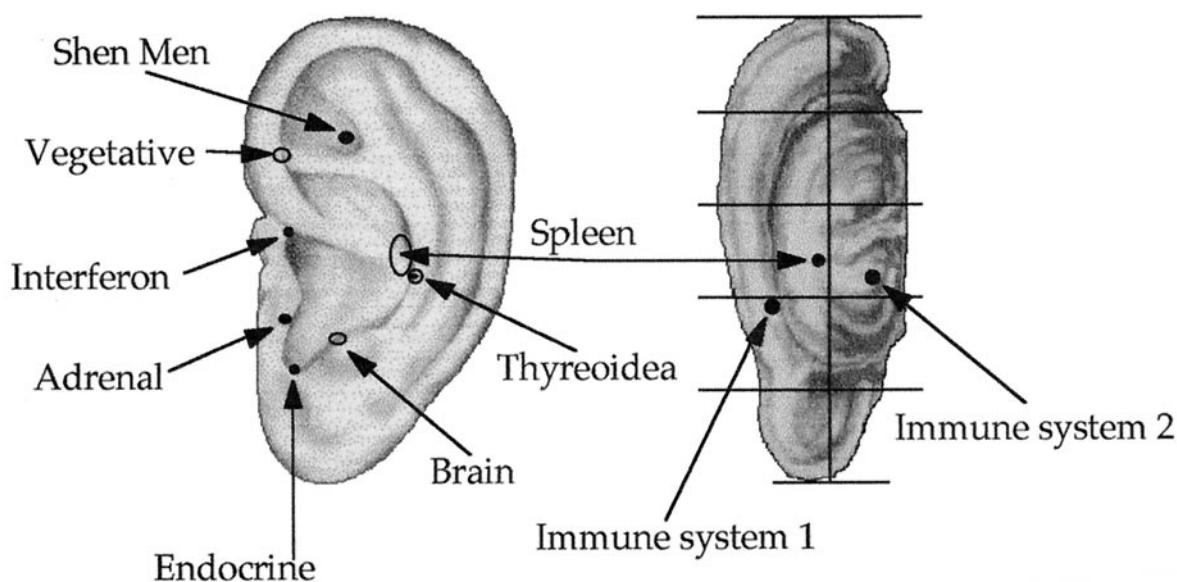
The most essential moment of the treatment is the identification of individual factors in the pathogenesis in every case. In many patients this leads to numerous extensive laboratory tests and other examinations. An easier approach is to perform ear acupuncture diagnosis-

tic, which can give us a clue to many possible disease causes.

A representation of the body has been mapped out on the surface of the ear with areas relating to body structures and organs. Tenderness or reduced electrical resistance at specific ear points indicates pathology in the corresponding areas of the body. The auricle has been used in practice for the following purposes: diagnostic, prophylactic, therapeutic, and analgesic. Most authors who have investigated the diagnostic value of the ear recommend the following methods: visual inspection, determination of electrical skin resistance, and location of tender points through pressure. The aim of our research⁵⁵ was to investigate auricular points in 270 patients (152 women and 118 men) with various clinical forms of alopecia areata. The results of auricular diagnoses are shown in Table 3 and Fig 14.

Analysis of these results show that almost every patient we examined has a specific personal "code" of tender points on the auricle, so it is probably not suitable to use a standard treatment pattern for all patients, as has tended to be the practice. This simple method of investigation can rapidly suggest possible causes for the development of alopecia areata, which later can be confirmed by more extensive Western medical testing. For example a 31-year-old patient from Sofia with fast developing alopecia totalis universalis was found to have Grave's disease (morbus Basedowi). He had noted a small bald spot on his head 4 months prior to coming to our clinic. Within 20 days all the hair on his head had been lost, despite the therapy and efforts of his physicians to find the cause of the disease. The patient reported moderate-to-severe stress over the previous year, which was assumed to be the precipitating cause of his condition. For the past 6 months the patient had

Figure 14. Ear acupuncture points for treatment of alopecia areata.



been feeling very tired in the second half of the day and had twice suffered from short viral illnesses. He had also noticed that his palms were often wet with sweat. The patient gave no family history of the condition.

Auricular testing demonstrated tenderness at the following points: Left ear: shen men, vegetative, allergy, interferon, endocrine, thyroid gland, neurasthenia, immune system 1 and 2; Right ear: shen men, vegetative, allergy, interferon, endocrine, thyroid gland, neurasthenia, immune system 1 and 2.

Allergy testing showed a strong response to animal protein, bacterial antigens, and pollens. Consultation with the endocrinologists and further testing confirmed the diagnosis of Grave's disease.

A course of 15 auricular acupuncture treatments in points shen men, interferon, immune system 1 and 2, thyroid gland and neurasthenia improved his condition partly, but no hair growth was noticed for 2 months after this treatment.

The corporal acupuncture is utilized widely in the treatment of alopecia areata and in most cases is combined with auricular puncture. The later is more effective for influencing the glands with inner secretion as the endocrine disorders are often on the base of pathological process. Corporal acupuncture exerts influence on the skin microcirculation that can be objectivized. Abramov et al.⁵⁶ investigated the speed of capillary circulation of the scalp and its changes under influence of needle therapy among 48 patients with different forms of alopecia, 12 of them with alopecia areata. The investigation confirmed that in all forms of alopecia, significant disorder of the skin microcirculation in the scalp region is present. The application of the acupuncture as a treatment method has sufficient effectiveness as it normalizes capillary circulation which has an undisputed role in the pathogens in the most cases of alopecia. The indices of dynamic for normalization of capillary circulation can also be utilized for evaluation of effectiveness of the therapy and even for a prognostic assessment of the disease.

Ludyansky⁵⁷ reported combined therapy with acupuncture and injections of ACTH among 24 patients (18 men and 6 women) with alopecia areata and alopecia totalis where etiopathogenetic factors were past infectious diseases and head trauma, in consequence diencephalic disorders. In all patients the content of 17-ketosteroides in urine was investigated. It was confirmed diminished content (to 11.6 ± 0.4 mg in 24 hours) in 10 men, but in the remaining eight the content was normal (17.6 ± 1.2 mg in 24 hours). Similar diminishing of 17-ketosteroides levels were observed among women, where the average value was 5.4 ± 0.8 mg in 24 hours. The acupuncture has been applied according to a special technique, the so-called *Mei Hua* (translated from Chinese, colors of apricot Mume). Three needles prick the whole back middle meridian (Governor ves-

sel) until the appearance of one blood drop; the drops must be left dry and are not wiped out. Through this technique scalp regions, the meridians of gall bladder, and the three energizers are also pricked. Besides this widely used Far Eastern technique, other points for general stimulation were treated and ear acupuncture shen men, occipital, brain stem, the front and head parietal region. In general 20 procedures were carried out daily which represented one course of treatment and a new course of therapy was implemented again after a break from 2 to 3 months. All the patients have been treated from 2 to 6 courses for total of 6 to 18 months. This treatment gave positive results in 20 of 24 patients immediately after the first course of the therapy.

The good influence on alopecia lesions is in addition to an increase in quantity of 17-ketosteroides. Authors have reported lack of effect only in two of all 24 patients. According to the authors acupuncture in the points of back middle meridian had an effect over reticular formation, normalization of the function of vegetative nervous system, which reflected on electroencephalographic investigations, carried out before and after the treatment. From the point of view of traditional Chinese medicine the treatment must be directed toward elimination of Wind-Feng and adequate intake of nutrients for the Blood-Xue that can provide for a correction of Kidney Yin. The Chinese physicians utilized for the treatment of this disease more herbal formulas for internal and external use than acupuncture. Though we consider the basic problem—nutritional deficiency of Blood-Xue for tissues—the main method of treatment for this disease is the cautious use of rubbing therapy with the so-called plum blossom needle. In this way are treated alopecia sections with duration of 10–15 minutes daily. The basal corporal points were GV20 (*Bai Hui*), St8 (*Tou Wei*), and one Ex-P called Grow Hair point (in Chinese *Zhang Fa Dian*), which is disposed just in the middle between GB20 (*Feng Chi*), and GV16 (*Feng Fu*). The last two are also very basic points for alopecia treatment together with LI4 (*He Gu*) and LI11 (*Qu Chi*). In the case with deficient Qi and Blood-Xue also is used St36 (*Zu San Li*) which is often warmed with moxa. As additional points are applied Ex-P Yi Ming, Ex-P Tai Yang, Ex-P Yu Yao, etc. Moxibustion is applied over the points BI13 (*Fei Shu*), B123 (*Shen Shu*), 3E5 (*Wei Guan*), GB34 (*Yang Ling Quan*), over alopecia fields of the scalp and these procedures were carried out two times weekly.

As means of local therapy different plants or combinations of plants are applied such as a 25% tincture of *Fructus Zanthoxyli Bungeani* (in Chinese *Chuan Jiao*) or the mixture of *Radix Aconite's* dust (in Chinese *Chuan Wu*) and vinegar that are applied and rubbed in the alopecia regions.

Our first publication concerning possibilities through



Figure 15. Alopecia areata in the grandfather.

acupuncture treatment of alopecia areata is dated from 1975.⁵⁸ For a period of 21 years we have treated with acupuncture and related techniques 6235 patients with different forms of alopecia areata. In numerous of our publications^{59,60} we confirmed that the above-mentioned therapeutic methods and schemes exert immunomodulating and vegetoregulating effects and influence some glands with inner secretion, capillary circulation, and others. These methods are very effective in the treatment of alopecia areata and do not provoke side effects. In the severe forms of disease, best results are obtained when several techniques of external irritation and medicamentous treatment are combined in every day use of plum-blossom needle until appearance of light erythema or small drops of blood, electroacupuncture and moxa in the above-described points, auriculotherapy, intramuscular injection of ACTH (Synacten depot), treatment with oligoelements zinc, iron, and selen in the case of their serum deficit. Significant beneficial effect for the patients can be achieved by learning exercises of Chinese gymnastic Qi Gong which accomplishes many beneficial influences over numerous biologic functions in the organism as well as over psychoemotional state. For better illustration we present one interesting clinical case of familial alopecia totalis treated with this method.

A father and his son suffered from universal total alopecia areata, and the grandfather with total form. The grandfather died in 1928. In the last 20 years of his life he had no hair on his head. His relatives could not provide information about a lack of hair on the other parts of the body or about the nail changes (Fig 15).

The father was born on July 29, 1951. He became ill when he was 20 and perceived a small hairless spot on the beard, later on his right eyebrow and occipital region. Successively fields on the two legs and during 2 consecutive months all hair on his body had dropped out.

During the first 4 years of disease he was not treated. In 1985 investigation and treatment were carried out in the Center for Alopecia. He remembered that a focal infection had not been found and he was treated with



Figure 16. Universal total alopecia areata in the father.

corticosteroids externally, dehydrocortisone tablets (per os) in prescribing scheme. In the course of several months he had not improved and refused the treatment. In 1992 he renewed the therapy in the Chair of Dermatology and Venereology in Sofia.

He worked as an electric-engineer in the Bulgarian Academy of Sciences. Just before that he was working in another place where his job required a great psychical strain, which overlaps with the onset of his disease. He did not consume enormous quantities of alcohol.

Nephrolitiasis, discovered in 1972, resulted in hydro-nephrosis. In 1980 he rejected an urate-oxalate stone. In childhood he suffered from mumps and inflammation of both ears.

According to the family history his paternal grandfather had suffered from total alopecia for 20 years. His son is ailing of universal alopecia since 1992. His father had mildly expressed baldness. His mother has mild diabetes and one of the aunts has high blood pressure.

The dermatologic state examination could not establish hair over the head, eyelashes, eyebrows, and over the entire body (Fig 16). The nails of the fingers and toes are dystrophic, thin and longitudinal furrowed. Clinical and biochemical laboratory investigations do not relieve significant deviation from normal limits.

The cell immune reactivity points out relatively increased values of suppressor (cytotoxic CD 8+) lymphocytes and NK (CD 57+) cells. The rest of populations fluctuated in the normal limits.

Leukocytes (HLA) phenotype points out A2, A30, B13, /BW4/, BW 62, /BW6/, CW6, CW4, DR2, DRW 52, Daw.

The son was born on October 15, 1976. The onset of his illness started in February 1993. It was detected in one hairless sector of the head (Fig 17). Around it, stepwise in the course of 7 months the whole hair fell off and new fields formed. Along the limbs and the chest likewise circumscribing hairless areas appear.

History of past diseases: infectious children's disease and sore throat (tonsillitis). Does not drink or smoke. The onset of treatment with acupuncture is in the Chair of Dermatology, Sofia in June 1993.



Figure 17. Universal alopecia in the son.

His dermatological state before the cure (Fig 16) shows no hair on his head. On the limbs and chest there are alopecic fields, which get to palm size. The limbs' nails are not affected. The values of two clinical and biochemical laboratory investigations are in normal limits. Cell immune reactivity is characterized with low degree, moderate deficit of T and B lymphocytes.

The lymphocyte HLA phenotype indicate A2, A30, B13/BW4/, B44/BW44/, CW6, CW5, DR2, DRW 52, DQw1. The most simple genetic investigation of 41 relatives to 5 generation was carried out (Fig 18).

At the explored persons V-5, the disease begins at 16 years, while in his father IV-8, the appearance of disease starts at 31 years. Except two examined persons, the anamnesis and familial photography discover total alopecia in common ancestor I-1, without information for the onset of his illness.

In person V-5 we have applied for total of 18 months

several electroacupuncture courses in points GV16 (Feng Fu), GV20 (Bai Hui), LI4 (He Gu), LI11 (Qu Chi), St36 (Zu San Li), Sp6 (San Yin Jiao), Ex-P (Hair Growth Point (Zhang Fa Dian)). The applied current was 5 mA and the frequency of the impulses 4-6 Hz. In the auricle the treated points were shen men, immune system 1 and 2, lungs, endocrinium. Each course consisted of 15 daily procedures, with exception of weekends. After the first course there was a 1-month break, then the second course was undertaken, a break of 3 months, a new course of 15 procedures, a break of 6 months, and the last course.

After the second course the patient started to exercise Qi Gong, general stimulation techniques. Also three courses of 60 amp. extr. Aloe sc were done.

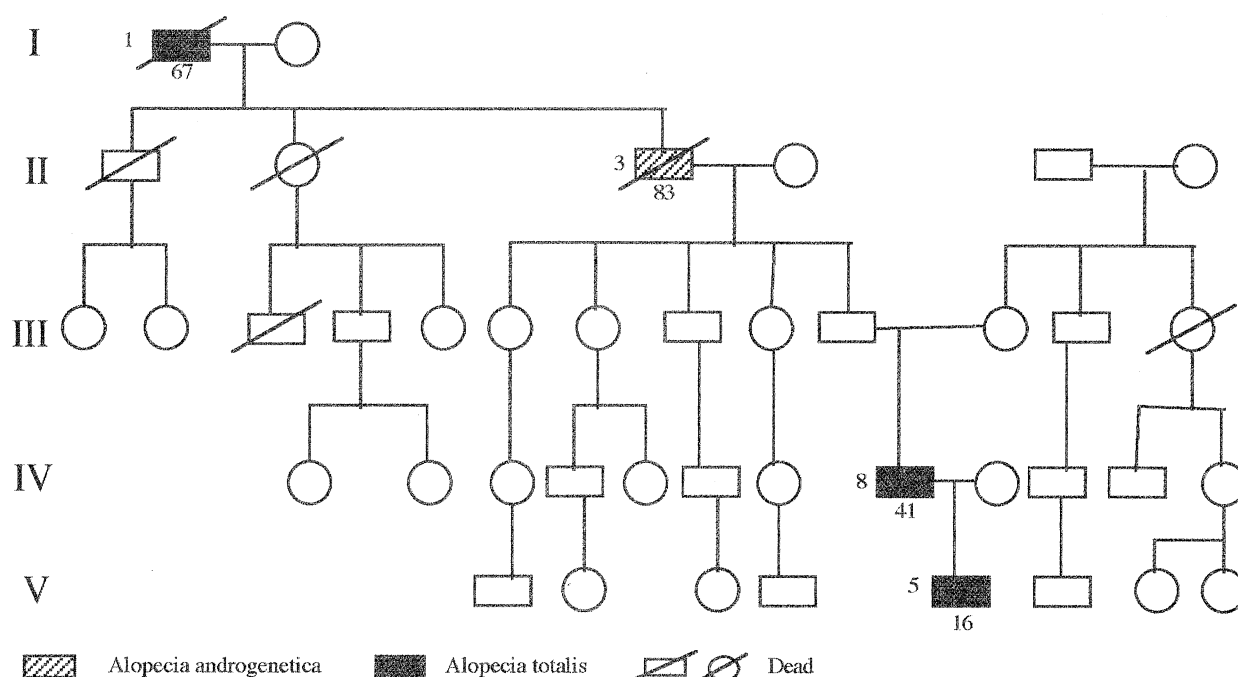
On the fourth month of treatment a clinical improvement was noted, down-like hair on the head, and on the 18th month the patient was considered clinically healthy.

Treatment with acupuncture of alopecia is a mainstream therapy in the Chair of Dermatology and Venereology of the Sofia Medical University, and results achieved are very promising.

Herpes Simplex

Infections of the skin and mucous membranes caused by herpes simplex virus (HSV) are frequently encountered in clinical practice and present various clinical symptoms. Two main groups of infections can be distinguished, primary and secondary (recurrent). Both are caused by either HSV type I or HSV type II.

Figure 18. Genetic follow-up of familial alopecia totalis case.



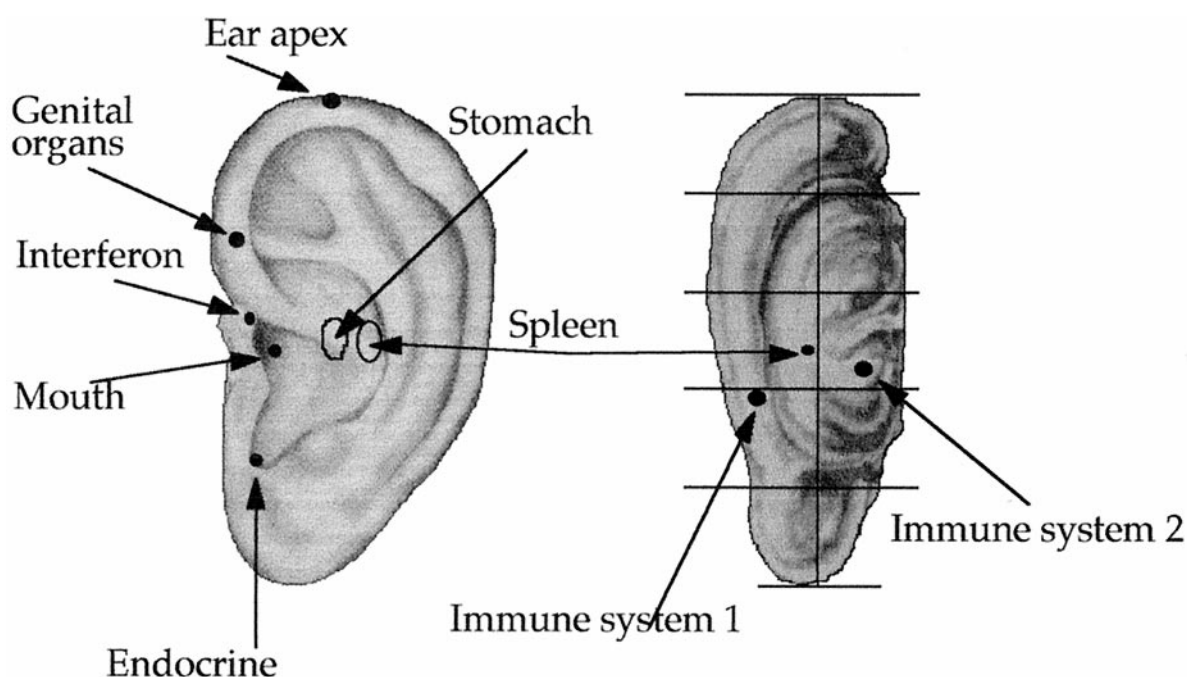


Figure 19. Ear acupuncture points for treatment of herpes simplex recidivans.

The primary infection develops during the first encounter of the organism with HSV due to the absence of anti-HSV antibody in the serum. In 99% of the encounters it does not lead to clinical consequences and can only be demonstrated by the presence of antibody in the serum. Secondary recurrent infections are due to reactivation of the HSV, which has been latent, or due to reinfection with HSV while anti-HSV antibody are already present in the serum.

It is accepted that the infection can spread from the primary site through migration of the HSV from one cell to the other, through blood exchange, or through nerve endings. Virus genetic material located in nerve ganglia is in a latent state. If immunity becomes suppressed or some virus activating factors appear, a secondary recurrent infection occurs.

Ceratinocytes and langerhans cells produce cytokines (interferon, II-2), which carry out the lymphocyte invasion into the HSV site.⁶¹ Helper and cytotoxic cell-mediate immunity are important for limiting the HSV infection to the skin and peripheral ganglia.⁶²

The mechanisms through which the HSV infection develops are now clearly understood and they direct the clinicians' attention to the activation of the immune response on a cellular and humoral level.

The treatment of secondary recurrent HSV infections is extremely difficult since effective anti-viral drugs to this point have not been developed. The widely used clinical practice drugs based on acycloquanosin (acyclovir, zovirax) has not met expectations; it is toxic and

after prolonged use has a mutagenic effect and leads to chromosomal aberrations. There are also resistant cases.^{63,64}

Great hopes for the prophylaxis of the virus infections were placed on the vaccines, but clinical practice has shown that they are not sufficiently effective and are not widely used due to the suspected oncogenic characteristic of the HSV DNA, introduced into the body through the vaccine.^{64,65}

TCM calls herpes simplex infections *Re Chuang*, hot sores. Treatment of HSV and herpes zoster according to traditional Chinese medicine follows the same guidelines and is basically equal, so we describe treatment procedures for both HSV and herpes zoster here.

From the TCM point of view, herpes infections can be divided to those affecting upper part of the body and those affecting its lower part and this classification does not fully correspond to our modern division of HSV type I and type II. TCM considers HSV infections affecting upper part of the body as caused by the attack of the toxic Wind-Feng and Heat-Re which leads to coming upward of the meridians of lungs and stomach. Infections of lower part of the body are caused by toxins of the Dampness-Shi, localized in the meridians of liver and gall bladder. Recurrent HSV infections most often result from the dysfunction of the functional circles (meridians) of spleen and stomach, and more specifically of the mechanisms of transportation and transformation inside these meridians, which leads to the accumulation of heat and warming up the fluids *Jin Ye*.

Another mechanism could be heat injuring the fluids and they blaze to the surface of skin where herpes blisters are formed.

In Chinese literature there are notes on empirical remedies for treatment of herpes infections. One of the recipes is for herpes blisters appearing on the nose and mouth, bloodletting from the ear apex is recommended, one per day for a total of 3–4 days. Each time 8–10 drops of blood are to be squeezed. Also, the ear acupuncture points in Fig 19 are often used for treatment of herpes simplex.

According to the same source, the main acupuncture points for herpes infection of the upper part of the body are LI11 (*Qu Chi*), GV12 (*Shen Zhu*), GB34 (*Yang Ling Quan*), Sp6 (*San Yin Jiao*), and additional points if HSV infection affects nose or eyes are ST8 (*Tou Wei*), GB14 (*Yang Bai*), Ex-P Tai Yang, for cheeks, St2 (*Si Bai*), St7 (*Xia Guan*), B11 (*Jing Ming*), for jaw, St4 (*Di Cang*), St5 (*Da Ying*), St6 (*Jia Che*). For HSV infections of the lower part of the body the main points are St36 (*Zu San Li*), LI11 (*Qu Chi*), GV12 (*Shen Zhu*), GB34 (*Yang Ling Quan*), Sp6 (*San Yin Jiao*). Strong manipulation should be applied, needles should be left for 20–30 minutes, and local points next to the herpes lesions should be placed. Moxa application is also advised in the healthy regions between lesions. Strong itching reaction will occur and moxa manipulation should continue until itching disappears.

In the available literature the treatment of herpes infections with acupuncture are rare. Gordon⁶⁶ described the cure with acupuncture of 10 of 11 patients. Main points used were on gall bladder meridian and on ear. Liao and Liao⁶⁷ describe two cases of oral herpes and three cases of herpes type II treated with acupuncture. In this limited clinical observation there are noted marked reduction of an episode, lengthening of the remission and prevention of the recurrences.

Our research with HSV began 15 years ago when we treated a patient suffering from Cheilitis granulomatosa and recurrent HSV infection with more than 15 attacks annually. At that time we used only low-level He-Ne therapy, which did not lead to satisfactory clinical results.

In 1995 we published an article on observation of the dynamics of the immunologic parameters of patients suffering from recurrent HSV before and after therapy with acupuncture, low-level laser therapy, and phyto-products. Results have shown statistically significant difference in levels of C3 and IgA. Initially suppressed humoral immunity has shown tendency toward normalization of values.

While searching for the means which would also influence humoral immunity, we applied a combined treatment which included:

1. Direct irradiation of the herpes lesions with low-level He-Ne laser with power density 150 mW/cm² and with 5-minute duration of the irradiation.⁶⁸
2. Body acupuncture in the points GV20 (*Bai Hui*), LI4 (*He Gu*), LI11 (*Qu Chi*), St36 (*Zu San Li*), Sp6 (*San Yin Jiao*).
3. Daily subcutaneous injections of 1 ml extr. Aloe.
4. Specific dietary recommendations.

After a treatment course of 2 months the attacks were terminated for a period of 9 months and after a new course of treatment the patient was clinically free of infections for more than 2 years.

This positive therapeutic effect encouraged us to apply the same method to a series of patients suffering from recurrent erythema exsudativum multiforme in connection with HSV and also in other, graver forms of HSV infections, both type I and type II.⁶⁹

This study summarizes the treatment results for 342 patients (162 men and 180 women) suffering from HSV and treated with the proposed original therapeutic method. Patients were aged 17–61. Two hundred ninety-one patients were suffering from HSV type II and 51 from type I. According to the severity of the disease, the patients were divided into three groups:

1. 150 patients with a very serious condition: more than 12 attacks annually.
2. 109 patients with a moderately serious condition: 4–12 attacks annually.
3. 83 patients with a light condition: 1–3 attacks annually.

For patients of groups 1 and 2 we applied the following treatment plan: 15 sessions in the above-mentioned acupuncture points, 1 month rest, another 15 sessions, 3 months rest, another 10 sessions, 6 months rest, and a final 10 sessions. In patients with deficiency (Xu) type, the sessions were carried out three times a week (Monday, Wednesday, Friday) and tonification (Bu) method was used and in patients with excess (Shi) type, the sessions were carried out daily and a sedation (Xie) technique was used.

For patients of group 3 we used two courses of 15 sessions each with 3 months rest in between.

He-Ne laser therapy was performed only if herpetic efflorescence was present.

Subcutaneous aloe injections in patients of groups 1 and 2 were carried out in a 3-month course. The first 30 injections were applied daily and the second 30 every other day. Every 6 months a 30-day course of daily applications was performed.

In group 3 only the first 3-month course was performed.

Some of the cases were followed up for more than 5 years and the minimal follow-up period was 18 months.

In patients of group 1 complete recovery was ob-

served in 113 cases (75%); for the period of no less than year no new attacks have been noted. An improvement was observed in 25 patients (17%) the attacks were reduced to 2–3 attacks annually. The treatment had no effect in 12 patients (8%).

In patients of group 2 full clinical recovery was observed in 60 patients (55%), improvement (1–2 attacks annually) in 32 patients (29%), and no effect in 17 patients (16%).

In patients of group 3 complete recovery was observed in 69 patients (83%), improvement in 5 patients (6%), and no effect or left treatment course for various reasons in 9 patients (11%).

Results of our combined method are especially encouraging when compared to results of another unpublished trial of ours, where only injections of extr. Aloe or only He-Ne laser treatment were used (192 patients, 56% improvement and 75 patients, 16% improvement, respectively).

Based on our 15-year experience in the treatment of secondary recurrent HSV infections and on the basis of the observed dynamics of a large number of immunologic parameters,⁴⁵ we conclude that a very effective method for the treatment of this extremely widespread disease has been found. Through the modulation of both protective systems of the organism—cellular and humoral immunity—which protect against infiltrating foreign bodies (in our case viruses), this is the method that has shown the best therapeutic outcomes in our clinical practice.

Herpes Zoster

Zoster and varicella are due to the same virus. The invasion by varicella-zoster virus results in a primary infection and the infected person develops clinical chickenpox. The virus remains dormant for an indefinite period. Subsequent reactivation is dependent on immunologic state and results in clinical zoster.

Zoster is usually unilateral and limited to one or more neural segments (dermatome). Common are thoracic and lumbar forms, ophthalmic division of the trigeminal nerve, cervical roots, and another division may also be affected.

The appearance of skin eruption may be preceded by general malaise and sensation of hyperaesthesia or pain over the affected neural segment. The eruption is characteristically unilateral and segmental with vesicles set on an erythematous base. In severe instances hemorrhage or local necrosis may be seen at the site of the lesion.

Pain is variable and is usually absent in children and young people. At times pain can be very severe, especially as postherpetic neuralgia, which affects elderly patients and may persist for a year or more.

In Chinese herpes zoster is called *She Chuan Chuang*, snake cluster sores, because of the often unilateral,

chain-like distribution of the lesions on the body. From the viewpoint of the TCM the two primary causes of herpes are blazing fire in the liver channel and damp-heat in the spleen channel. A third pattern, associated with postherpetic neuralgia, is caused by stagnation of Qi and Blood-Xue.

Herpes zoster is usually benign and self-limited. In severe instances the disease could be considerably reduced in intensity and duration by a 7–10 day course of anti-viral medication, which should be started within 48–72 hours of the appearance of the skin eruption. The effect of the anti-viral medication in preventing postherpetic neuralgia is less clear. Acupuncture can be used successfully for the treatment of pain. Boaler⁷⁰ has no doubt that simple acupuncture in the form of a “surrounding the dragon” technique, given where possible in the acute phase of herpes zoster, would hasten recovery and reduce the occurrence of postherpetic neuralgia. A series of 30 patients was observed, 28 were of 60 years of age. Patients were given 3 or 4 surround the dragon treatments. In the group of over 60-year-old patients, 12 obtained considerable relief, 9 some relief, and 7 continued to have severe pain; one patient became pain free after a month. The two patients below 60 years improved and became almost pain free.

Boaler⁷¹ used acupuncture for the treatment of 24 patients with acute herpes zoster, 12 of whom over 60 years of age. It is a unique series on account of the acupuncture points selected GB20 (*Feng Chi*) bilaterally. These were the only points used whichever part of the body was involved. The justification for this point selection was that GB20 (*Feng Chi*) was described as being “vaso-sympathetic.” The needles were stimulated to elicit needling sensation (De Qi or propagation of sensation along the channel phenomenon) and were left in for 20 minutes. The patients had a mean duration of pain of 5.4 days from the start of treatment. An average 4.2 treatment sessions were required to render the patients pain free, with treatment given daily or on alternate days. The author concludes that 75% of the elderly patients were pain free within 2 weeks of the appearance of the skin eruption.

Coghlan⁷² treated eight patients with electroacupuncture: three with acute herpes zoster and five with postherpetic neuralgia. Acupuncture was performed on with “surround the dragon” technique, incorporating segmental points on the side of the lesion. Points LI4 (*He Gu*) and Liv3 (*Tai Chong*) were used bilaterally. The intervals between treatments varied from 1 to 4 days. All three acute cases obtained complete pain relief after maximum seven treatments. Patients were free of pain during the follow-up period.

Four of the five patients with postherpetic neuralgia also obtained fair-to-good pain relief with treatments given at 3–4-day intervals, with a maximum of seven treatments.

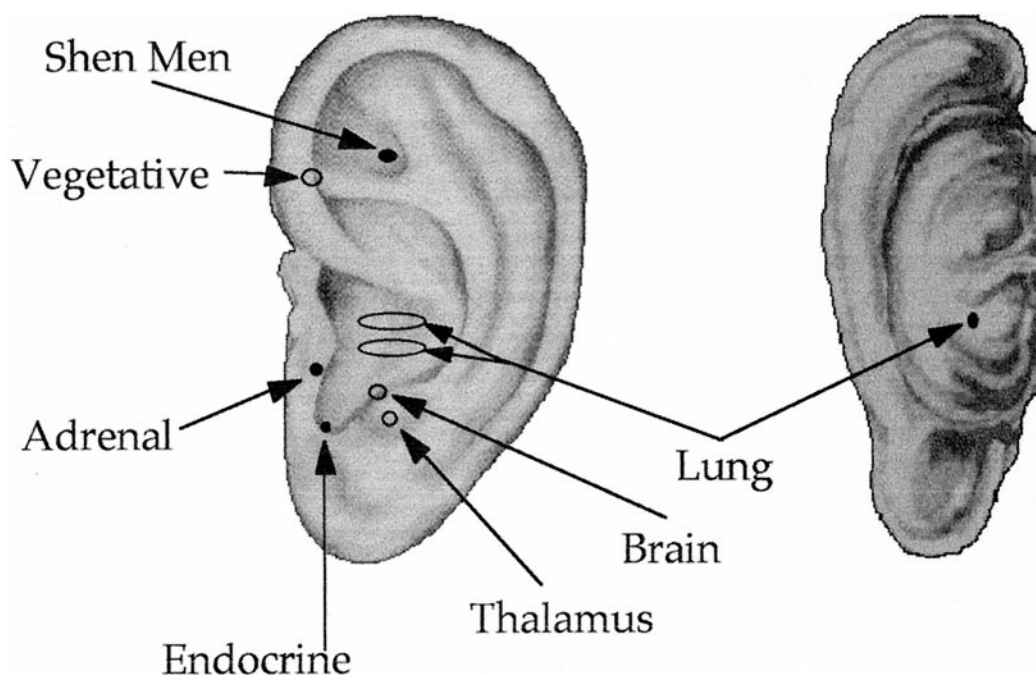


Figure 20. Ear acupuncture points for treatment of herpes zoster.

Shupen'ko et al.⁷³ described the case of 57-year-old patient who was admitted with general poor situation due to generalized herpes zoster varioliphormis and had been treated with various conventional means (antibiotics, ganlioblockers, antihistamine, g-globulins), and acupuncture. Acupuncture was performed according to the following scheme: first session L7 (*Lie Que*), B140 (*Wei Zhong*); second session, LI11 (*Qu Chi*), B113 (*Fei Shu*), Liv5 (*Li Gou*), ear acupuncture—shen men, zero point according to Nogier; third session, St7 (*Xia Guan*), GB1 (*Tong Zi Liao*), LI4 (*He Gu*), Liv3 (*Tai Chong*), ear acupuncture shen men, sympaticus, cheek; fourth to tenth session, GV20 (*Bai Hui*), GB20 (*Feng Chi*), GB2 (*Ting Hui*), TE5 (*Wai Guan*), ear acupuncture, subcortex, endocrinium, occiput. The pain was completely relieved on the tenth day. The patient was checked out with slightly diminished hearing ability and residue of ganglion neuritis. Authors consider acupuncture a valuable tool for treatment of severe herpes zoster infections.

Gillingham⁷⁴ reported treatment of 50 patients with acute herpes zoster. Twenty-six of these subjects were over 60 years old and therefore in the high risk category for postherpetic neuralgia. 88.4% of the patients had experienced no pain since their last acupuncture procedure.

The following acupuncture regiment may be used to treat herpes zoster. Local needling may be utilized alone or in conjunction with body needling, dependent on the patient's tolerance. Four to five needles are inserted radially at 15–30° angles (toward a central point) surrounding a cluster of lesions. Needles are retained for 30–60 minutes, with needle manipulation every 10–15 minutes. We have treated patients once daily

with Xu-type constitution and condition. In very severe forms and Shi-type of constitution and condition, twice daily and applied electroacupuncture.

Main corporal acupuncture points which we use for treatment of herpes zoster are LI4 (*He Gu*), LI11 (*Qu Chi*), St36 (*Zu San Li*), Sp6 (*San Yin Jiao*), and GV12 (*Shen Zhu*). Secondary points are selected dependent on the localization of the herpes zoster lesion. For lesions near the eye, Ex-P 9 (*Yin Tan*), St18 (*Tou Wei*), GB14 (*Yang Bai*); for lesions on the cheek, B11 (*Jing Ming*), St2 (*Si Bai*), and St7 (*Xia Guan*); for herpes zoster intercostalis, P7 (*Da Ling*) etc.

Ear acupuncture can be used successfully for pain relief. Main points in the ear utilized are shen men, vegetative, adrenal, brain, endocrinium, thalamus, lung and points which correspond to the affected area (Fig 20). For each session we choose four to five of the main painful points among them.

Moxa roll moxibustion could be applied to healthy areas between lesions. Extreme itching will occur due to the heat. One should continue moxibustion until the itching stops and changes to the sensation of extreme heat, and then cease treatment. Treat once daily and after four to five sessions the lesions will usually show evidence of healing.

Cupping may be used for early outbreaks. First apply one cup at each of the two endpoints of a group of lesions for 15 minutes. Vesicles filled with serous fluid may appear during or following cupping. Cups are then applied consecutively along the path of the lesions. Treat once daily and four to five sessions are usually enough for clinical improvement.

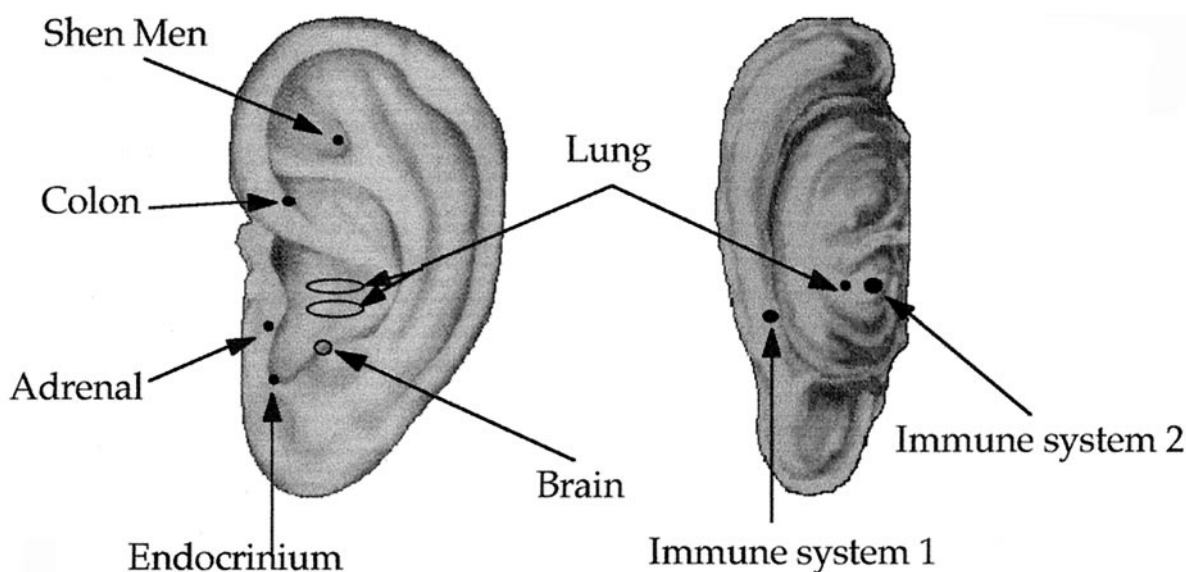


Figure 21. Ear acupuncture for treatment of warts.

With this combined method of treatment we have treated for 21 years 294 patients suffering from different clinical forms of herpes zoster, mainly severe forms. The often seen varieties were herpes zoster intercostalis (105 cases), herpes zoster ophtalmicus (62 cases). Patients were aged 41–76 years old, women patients 171, men, 123 patients. Complete pain relief was obtained in 256 patients within 10 procedures, in 30 patients, between the tenth and fifteenth procedure and in the rest of patients after the second course of treatment. One course of treatment consisted of 10-day procedures (not on weekends) and in severe cases electroacupuncture was applied.

Verrucae

Warts are papilloma virus infection. This DNA virus induces proliferation of the epidermal cells. If the wart virus stimulus is small, the result is a flat wart (*verrucae planae*). If the stimulation is great, the cells proliferate and the skin folds upon itself giving rise to an irregular verrucous surfaces.

The warts are classified according to site and morphology. Any part of the body surface or mucous membrane may be affected.

Verrucae vulgares are seen mostly on the fingers, hands, and other parts of the limbs. They are single or multiple and may coalesce to form a verrucose plaque.

Plantar warts are located on the sole often on the metatarsal arch or heel. They are hyperkeratotic and painful. Mosaic warts are an aggregate of small tumors which may cover a large area of the soles.

Verrucae planae are usually seen on the hands, face, and legs and frequently occur in children. They have a smooth, flat, pink or yellow surface but most of them have normal skin color.

Verrucae filiformis and *digitatae* project from the

surface of the skin and are usually found on the face, the oral mucosa, and genitalia.

Condyloma acuminata are found in the anogenital and in moist flexural sides area. They form soft, cauliflower-like vegetation pink or gray in color.

Different types of papilloma viruses are known⁶⁵ and some of them are cancerogenic types.⁴⁵ They are found in *verruccosis generalisata*.

There is no ideal therapy for warts used in the Western medicine. Sometimes these tumors disappear spontaneously. Suggestion, psychotherapy, and hypnosis are effective in certain cases.

In TCM warts are called *Qian Ri Chuang* which means "thousand day sores" or *Ci Hou* "thorny condition" in the classics. They are due to lingering pathogenic wind in the skin due to Blood-Xue dryness and liver vacuity. The Blood-Xue is unable to nourish the sinews, whose Qi then fails to flourish. Thus, when attacked by wind, Blood-Xue and Qi congeal and give rise to warts.

Condyloma acuminata in Chinese are called *Jian Rui Shi You*, "pointed most extraneous growths." Damp-Heat lodged in the skin of the perineum is the source of this condition. When the damp-heat is unresolved and becomes protracted, it transforms into toxin, and give rise to the lesions.

Acupuncture is used as an immunomodulating tool and for increases of the resistance of the organism in treatment of all kinds of warts. Points LI4 (*He Gu*), LI11 (*Qu Chi*), GV14 (*Da Zhu*), GV20 (*Bai Hui*), St36 (*Zu San Li*), Liv3 (*Tai Chong*) are used. In venereal warts Sp6 (*San Yin Jiao*) and CV4 (*Guang Yuan*), CV6 (*Qi Hai*) are added.

In our unpublished study of 218 cases of warts (115 *verrucae planae* and 115 *verrucae vulgares*) we found

Table 4. Treatment of Warts

	Cured in 1 week	Cured in 2 weeks	Cured in 3 weeks	Totally Cured
Treated with acupuncture	21%	14%	30%	65%
Treated with liquid nitrogen	1%	7%	8%	16%

the most painful points and accordingly we have treated in the auricle points shen men, colon, brain, endocrinium, and lungs in patients with verrucae planae and adrenal, endocrinium, lungs, and immune system 1 and 2 in patients with verrucae vulgares (Fig 21).

Several local methods are used for treatment of warts.

1. The two points on each side of the wart, lying on the meridian, on which wart is lying, are chosen and are treated daily. It's a good idea to combine this treatment with a special treatment of the mother wart. The method involves inserting the needle horizontally into the wart and then removing the needle.
2. Pinch the wart horizontally and vertically perpendicularly to the base. In both methods the wart is pressed until white and then the needle is inserted and 1–2 drops of blood are squeezed. Usually after four to five sessions the wart starts to involute.
3. The above treatments can be combined with moxibustion. After sterilization with alcohol a small cone is burned on over the wart. The procedure is applied twice daily (morning and evening), often the patient can be taught to do it alone. In some cases on the third day a part of the wart could be removed with scalpel.

Our unpublished results of treatment of warts with acupuncture and liquid nitrogen are shown in Table 4.

Acupuncture was done in general stimulating and immunomodulating points and locally according to method 3.

We do not have experience in local treatment of the venereal wart with acupuncture nor we have found any reference in the available literature.

In our 21-year dermatological and acupuncture practice we have treated different skin diseases, including many severe types as pemphigus, SLE, etc., and in some cases we have obtained very good therapeutic results. When the number of patients reaches statistical significance, we will publish our data.

In conclusion we recommend acupuncture as a safe and effective method for everyday dermatological practice. It is very satisfying that once successfully treated, patients continuously look for specialized acupuncture medical treatment.

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