

THYROID PATHOLOGY TREATMENT WITH TRADITIONAL CHINESE MEDICINE METHODS

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Recently the growing number of researchers have paid attention to the problems of the thyroid diseases' etiology, it is indicative that the study of this widespread pathology hasn't approached a satisfactory level. Thus the progress in the field of the thyroid diseases' research hasn't yet resulted either in the decrease of the sickness rate or in the considerable increase of the prophylactic and treatment measures' efficiency. The epidemiological data give objective evidences of the thyroid diseases' morbidity extension.

About 10% of all children and 10–30% of the adult population suffer from endemic goitre. 12.1% of the children examined in Moscow have developed the hyperplasia of the 1st and the 2nd degrees. Recently the sickness rate of autoimmune thyroid diseases has become especially high, the most numerous are the cases of autoimmune thyroiditis (AT). According to the modern endocrinology data the most widespread thyroid diseases has the autoimmune pathogenesis. There are two main forms represented with autoimmune hyperthyroidism (AH) and autoimmune thyroiditis. Adult patients have shown the growth of the autoimmune thyroid pathology's morbidity [Volpe 2000].

Hormonal thyroid dysfunctions cause autoimmune diseases. Thyroid hormones are essential for the normal growth and development of an organism. Practically all processes related to metabolism – immunity, thermogenesis and also many systems' and organs' functioning depend upon thyroid hormones.

Modern studies performed under the guidance of such competent scientists as L.I. Braverman (Thyroid Diseases, 2000) and N. Lavin (Endocrinology, 1999) have offered only medication treatment of thyroid diseases. However the practices of such diseases' treatment have shown that medication methods are not always positively effective so far. That's why enlarged research of the non-medication thyroid diseases' therapy and, primarily, of the treatment methods that have been developed by Chinese traditional medicine are of the barest necessity.

In Europe thyrotoxicosis was described by Roman scientists for the first time in the 2nd century AD, but in China it was done as early as in the 4th century BC,



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there existed a detailed description of the goitre and the methods of the illness' treatment. Only at the end of the 12th century AD in Europe Roger from Palermo prescribed iodine-containing sea plants for the treatment of the disease, and the cause of the illness i.e. the lack of iodine was discovered only in the 19th century. As early as in the 1st century BC Chinese pharmacology treatise "Shen Noon Ben Tsao Tsin" recommended the use of sea grass for thyroid diseases' treatment. An outstanding ancient doctor Ge Hoon advised to take the sea grass infusion in this case in the 4th century already. The connection of this illness with living in the mountain areas was found out in the 5th century AD.

Presumably the treatment with sea grass in Europe originated from China, because the Europeans got acquainted with compass, paper, scull and other Chinese inventions at the same period. The treatment of thyroid diseases with animals' thyroid glands was used in China in 15–16 cc. In China they had learnt how to distinguish malignant enlargement of the gland from thyrotoxicosis per se in the 7th century, i.e. one thousand years before they did it in Europe.

Ancient Chinese wizards believed that all natural phenomena are caused with the interaction of two opposite elements designated as In and Yan that are not only opposite but also are interconditional. Chinese traditional medicine considers thyroid pathology as the unbalanced In-Yan correlation with either In hyperfunction and Yan deficit or In hypo function with Yan surplus while Qi energy is stagnated. This principle has become the basis for the non-medication treatment of thyroid diseases.

Some Russian researchers [Zholondz 1997; Pesikov and Rybalko 1994; Oganova 1999; Vasilenko 2000] has written that acupuncture methods can be effective in thyroid pathology treatment. The method of reflex diagnostics worked out under the guidance of professor A.M.Vasilenko plays an important role in the acupuncture treatment since it allows to determine the functional status of different channels.

Y.S. Pesikov and S.Y.Rybalko (1994) developed the following treatment of thyrotoxicosis and hypothyroidism during 10 days.

When 16 years ago I started to treat my first patients suffering from this pathology, it turned out that I myself had two knot formations in the both thyroid lobes. It happened so that I became my first patient myself. That was why this illness' treatment caused not only my professional but my personal interest too. In the process of the investigations and special literature study I have found out that thyroid pathology induces dysfunctions of the main organs and systems which in turn provide for the development of the following illnesses:

- cardio diseases, as thyroid hormones increase both the frequency of systoles and miocardia contractions;
- bone illnesses since there are changes of osteo-system under the influence of thyroid hormones; there is growth acceleration in children; the catabolic action of the hormones results in the losses of the bone tissue albumin which induces osteoporosis (that is the cause of back and bone pains);
- pulmonary diseases, since hypothyroidism is connected with the obstructive dyspnea syndrome in sleep, snore and the grave course of bronchial asthma [Okampo 2000];
- psychic abnormalities; dysfunctions of the central nerve system;
- genital glands dysfunctions;
- autoimmune ophthalmopathy.

In course of pregnancy hypothyroidism increases the risk of an underweight and stillborn baby's birth, raises pre-eclampsia risk level [Okampo 2000].

Since 1990 105 patients with different autoimmune thyroid dysfunctions (95 women and 10 men, aged from 29 to 54) have been treated in the Centre of Chinese Medicine "Sin Ya Chju." In addition 8 patients with postoperative hypothyroidism have received treatment.

The complex of the obligatory check-up for all patients included: thorough examination and anamnestic records, all patients passed ultrasound examination of thyroid at least twice – before and after the

treatment, the pituitary thyrotrophin hormone level (TTH), serum triiodothyronin (T3) and thyroxin (T4) levels were determined simultaneously. The TTH level was tested with immunofermant and radio-immune methods, the T3 and T4 levels were checked with radioimmune method using standard test-kits. All patients were consulted by an endocrinologist, and besides all women were examined by a gynecologist.

More than one half of the patients also were examined with the method of variation thermoalgotre [Vasilenko A.M., Demin C.A. and others 2000]. This method of reflex diagnostics is based on the measuring of the latent pain feelings' period while effecting 40 acupuncture points located near fingernails and toe-nails beds' corners with fixed power infra-red radiation. The initial and final points of all 12 conjugate acupuncture channels are included into the points tested. The software of this method allows to make a conclusion about the functional condition of each channel and also to get the spectrum index of pain levels in 40 tested points. This index can be used for the integral assessment of the regulatory systems' status of an organism.

The test of anxiety-depression [Polyakova A.G and others 2003] was used to estimate the psycho-emotional condition of the patients. This test is represented in form of a questionnaire and comprises the scale of anxiety and depression. The result was calculated with the simple addition of the points marked by the patients themselves. The conclusion about the patients having correlated psycho-emotional dysfunctions was made at the total number of 9 points and more on the scale of anxiety and at the total number of 8 points and more on the scale of depression.

All patients had an average number of 20 acupuncture sessions during 1-1.5 months. The choice of the location, method and moment for the effect on the corporal acupuncture points was made according to the rules of traditional chjen-tsu therapy on the basis of the thorough anamnestic records, the analysis of the prevalent complaints and symptoms. Along with the meridian points the needles were put in the frontal-lateral projection zones of thyroid gland on the neck without acupuncture effect on the gland itself. In addition with corporal points the following auricular points were used: 45 – thyroid gland; 22 – internal secretion glands; 28 – pituitary gland; 55 – shen-men; 51 – sympathetic nerves system; 34 – cerebral cortex; 23 – ovary; 97 – liver; 95 – kidney. The duration of the catamnestic observation lasted from 1 (10 patients) to 7 years (23 patients).

The levels of thyroid hormones in patients suffering from euthyroidism didn't differ from the admitted normal values, however the patients had

complaints that were characteristic of AT, there were typical moderately manifested symptoms too. The patients suffering from cardiovascular, skin, neurologic, gastroenterologic and gynecologic diseases, who asked for medical aid, showed the symptoms of subclinical hypothyroidism. Abnormalities of thyroid status in the patients were determined in the process of the additional check-up. A veracious rise of the TTH level in blood (up to 6.29 ME/l) was found along with an insignificant decrease of the T4 level. In patients with clinically manifested hypothyroidism the TTH level increased reaching sometimes the amount of 22.5 ME/l, the T3 and T levels significantly decreased to 1.25 ± 0.14 and 59.04 ± 5.87 respectively.

The manifestation of hypothyroidism was determined and the degree of its compensation was indicated not only with the hormones' concentration tested in blood but also with the combination of the characteristic pathognomic and associate clinical symptoms.

It is necessary to tell the case histories of a few patients in detail to show the main principles of the developed technique. The patient K is a woman, aged 42. The diagnosis of occidental medicine: autoimmune thyroiditis. Complaints: getting easily tired, drowsiness, fast changes of mood, a tendency to tearfulness, tachycardia, night sleep dysfunction, constant feeling of cold in hands and feet.

The results of the lab tests: the decrease of the T4 level, which intensifies thyroliberin secretion; the decrease of LH and FSH secretion; ultrasound examination showed ovary polycystosis along with the increase of the LH level. The results of the thyroid ultrasound examination: the volume of the lobes has enlarged, the size has increased, the hypoechogenic pattern is diverse, two knot-like formations have been found. The results of the reflex diagnostics: the stomach channel E is deficient, deficiency of the renal channel R, the gall bladder channel G is excessive, the surplus of the large intestine. **The tactics of treatment:** a) the impact on the auricular points shen-men, the points of the internal secretion glands, pituitary points, ovary points (as the patient suffers from ovary polycystosis), hypothalamus; b) effecting the thyroid projection points in accordance with su jok system; c) moxibustion according to the method of "immunity strengthening" (the points tsui-qi, vai-guan, chjun-chju, he-gu, yan-lu-chen, tsu-lin-qi); d) effecting corporal points: tonic method – the points vai-guan and tsu-lin-qi (20 minutes), sedative method – nei-guan, chjo-hai (30 minutes), the points tsu-san-li, tai-chun, tsui-qi were also effectuated; e) putting needles in the frontal-lateral thyroid projection zones on the neck without puncturing the thyroid itself (30 minutes); f) in course of

treatment the patient complained of dizziness and also of pains in the area of the right blade-bone and wrist joint along the small intestine meridian (the above symptoms are stipulated with the liver meridian lesion), that was why the first point of the liver meridian "da-doon" (3 min.) and the point of the small intestine meridian "nau-shu" (pains in the right scapula area were indicative of this organ's lesion) were chosen for the acupuncture effect; g) the gynecology zone was effectuated with the method of scalp acupuncture once a week, in addition the treatment of the ovary and pituitary corresponding points was carried on too; h) during 7 days the patient took iodine drops with yoghurt which is prescribed in case of autoimmune thyroiditis; i) in connection with the hypostasis in the patient's cervical spine the treatment according to the kua-sa method was carried on; j) in course of the treatment the "open" point of the small intestine channel was effectuated; k) according to the su jok technique (in which the first point is considered to signify "dryness", the second point is considered to be "cold", the third – "wind", the fourth – "warmth", the fifth – "humidity") the corresponding corporal points were found: shao-tse – "dryness", chen-gu – "cold", hou-si – "wind", yan-gu – "warmth", shao-hai – "humidity", just these points were acupunctured – tonic method on the hou-si point (10 minutes), transitive method on other points – 20 minutes each; l) the first course of the treatment was performed in spring, the second – in September, the third – in December, according to the season the choice of the corporal points changed depending on the bad or well feeling of the patient in each season.

Let's consider the case history of the patient A., a woman, aged 52. The western medicine diagnosis: thyrotoxicosis – a diffuse goitre and also a cyst in the right thyroid lobe. Complaints of the constantly congested pipes, spontaneous pinching of the throat and choking sensation caused with strong emotions, hyperexcitability and nervousness, unreasonable fits of anger, sweatiness of the hands and feet, tinnitus; the associate illnesses – hypertonic disease of the 2nd stage, hemorrhage, arrhythmia. **The lab tests results:** insignificant increase of the T3 level, thyrolibrin level was decreased. The results of the thyroid ultrasound examination: a cyst in the right lobe and the enlargement of both lobes were found. **The results of the reflex diagnostics:** the surplus of the gall bladder, liver and stomach channels, the deficiency of the renal, heart and lung channels. **The treatment tactics:** a) effect on the auricular points shen-men, the internal secretion glands, pituitary, ovary, hypothalamus, thyroid points; b) effect on the points corresponding thyroid according to the su jok system; c) moxibustion of the points tsui-qi, vai-guan, chjun-chju, he-gu,

yan-lu-chen, tsu-lin-qi according to the “immunity strengthening” method; d) blood-letting and vacuum therapy (cups); e) effect on the corporal points; f) putting needles in the frontal-lateral thyroid projection zones on the neck without puncturing the gland itself (30 min.); g) effecting the stomach zone according to the scalp-acupuncture method once a week, in addition the points corresponding thyroid were treated too; h) during seven days the patient took iodine drops in yoghurt, which was prescribed for thyroid diseases; i) in connection with the hypostasis in the patient’s cervical spine the treatment according to the kua-sa method was carried on; j) in course of the treatment on the “open” point of the small intestine channel was effected; k) according to the su jok technique (in which the first point is considered to signify “dryness”, the second point is considered to be “cold”, the third – “wind”, the fourth – “warmth”, the fifth – “humidity”) the corresponding corporal points were found: shao-tse – “dryness”, chen-gu - “cold”, hou-si - “wind”, yan-gu – “warmth”, shao-hai - “humidity”, just these points were acupunctured – tonic method on the hou-si point (10 minutes), transitive method on other points – 20 minutes each; l) the first course of the treatment was performed in summer, the second – in autumn, the third – in winter, in accordance with the season the choice of the corporal points changed depending on the bad or well feeling of the patient in each season.

The patient I., a postoperative hypothyroidism case, aged 38. **The western medicine diagnosis:** diffuse goitre, knots, Basedow’s (Graves’s) disease. Complaints of constant fear, claustrophobia, extreme weakness, menstrual cycle’s dysfunction and sterility, anxiety. The patient takes elethyroxin regularly. **The lab tests results:** T3 and T4 level increased, increased level of antibodies, according to the biopsy results – a histology test showed a benign tumour. **The results of thyroid ultrasound examination:** numerous benign knot formations of both lobes after a thyroid operation. **The results of the reflex diagnostics:** excessive heart, liver and gall bladder channels, deficient lung, stomach and urinary bladder channels. **The treatment tactics:** a) effect on the auricular points shen-men, the internal secretion glands, pituitary, ovary, hypothalamus, cerebral cortex, thyroid points; b) effect on the points corresponding thyroid according to the su jok system; c) moxibustion of the points tsui-qi, vai-guan, chjun-chju, he-gu, yan-lu-chen, tsu-lin-qi according to the “immunity strengthening” method; d) blood-letting and vacuum therapy (cups); e) effect on the corporal points; f) putting needles in the frontal-lateral thyroid projection zones on the neck without puncturing the gland itself (30 min.); g) effecting the liver

zone according to the scalp-acupuncture method once a week, in addition the points corresponding thyroid were treated too; h) during seven days the patient took iodine drops in yoghurt and valerian decoction at night interchanging with motherwort decoction; i) in connection with the hypostasis in the patient’s cervical spine the treatment according to the kua-sa method was carried on; j) in course of the treatment on the “open” point of the liver channel; k) according to the su jok technique (in which the first point is considered to signify “dryness”, the second point is considered to be “cold”, the third – “wind”, the fourth – “warmth”, the fifth – “humidity”) the corresponding corporal points were found: shao-tse – “dryness”, chen-gu - “cold”, hou-si - “wind”, yan-gu – “warmth”, shao-hai - “humidity”, just these points were acupunctured – tonic method on the hou-si point (10 minutes), transitive method on other points – 20 minutes each; l) the first course of the treatment was performed in spring, the second – in summer, and the last, the third – in autumn.

The patient’s I. son, teenager, 15 years old. **The western medicine diagnosis:** autoimmune thyroiditis. **Complaints** of inability to concentrate attention at school lessons, poor memory, frequent dizziness, weakness, drowsiness in daytime, nausea and headaches round the temples. **The lab tests results:** T4 level decreased, T4 enhances the thyroliberin secretion; increased secretion of LH and FSH. **The results of the thyroid ultrasound examination:** a knot formation in the left thyroid lobe. The results of the reflex diagnostics: the gall bladder and triple energizer meridian dysfunctions (headaches around the temples indicate it), the liver and pericardium meridian dysfunctions (the indications are headaches in the vertex irradiating to the temple area). **The treatment tactics:** a) effect on the auricular points shen-men, the internal secretion glands, pituitary, ovary, hypothalamus, cerebral cortex, thyroid points; b) effect on the points corresponding thyroid according to the su jok system; c) moxibustion of the points tsui-qi, vai-guan, chjun-chju, he-gu, yan-lu-chen, tsu-lin-qi according to the “immunity strengthening” method; d) blood-letting in the points hou-din, tun-tyan; e) effecting corporal points fen-qi, yan-fu, le-tsue, nei-guan, da-chjui, kun-lun, sa-in-tsiao, tsui-qi, bai-hui, hou-si, shen-mai and tsu-san-li with sedative method (30 min.); f) in connection with the “wind” syndrome manifestations (lacrimation) the points tsuan-chju, he-gu and sa-in-tsiao were acupunctured with sedative method (30 minutes); putting needles in the frontal-lateral thyroid projection zones on the neck without puncturing the gland itself; g) effecting the liver zone according to the scalp-acupuncture method once a week, in addition the points corresponding thyroid were treated too; h) during

seven days the patient took iodine drops in yoghurt, also the patient was recommended to rinse his throat with milk to treat rhinitis; i) in course of the treatment on the “open” point of the liver channel was effected; j) according to the su jok technique (in which the first point is considered to signify “dryness”, the second point is considered to be “cold”, the third – “wind”, the fourth – “warmth”, the fifth – “humidity”) the corresponding corporal points were found: shao-tse – “dryness”, chen-gu – “cold”, hou-si – “wind”, yan-gu – “warmth”, shao-hai - “humidity”, just these points were acupunctured – tonic method on the hou-si point (10 minutes), transitive method on other points – 20 minutes each; k) the first course of the treatment was performed in summer, the second – in autumn, the third – in winter.

After the treatment all patients began feeling much better, they stopped to complain or decreased their complaints of weakness, fatiguability, drowsiness, the rhythm of sleep and vigil was fixed, the sensation of cold in skin stopped, the voice timbre improved. Some women’s menstrual cycle normalized. The patients’ looks transformed too – there appeared brilliance in their eyes, their hair became glossy, their complexion improved, the skin dryness decreased, edema and face puffiness vanished in 100% of the cases.

There were definite positive transformations found out in course of palpation of the thyroid projection on the neck (painful and discomfort feelings during palpation disappeared). The patients suffering from cardiovascular system’s dysfunctions began to feel much better. In case of hypertonic syndrome the arterial tension fell significantly, angio heart pains lessened or disappeared, the pulse normalized.

The indications of the hormonal status in the first group of the patients (euthyroidism) practically didn’t changed. There were positive changes of the thyroid hormone status in the patients of the second group (subclenic hypothyroidism) and of the third group (clinically manifested hypothyroidism).

The tendency to the normalization of the thyroid hormonal status as the result of the acupuncture treatment was observed immediately after the end of the course. However considerable changes of the three thyroid hormones’ levels in the patients suffering from subclinical hypothyroidism took place only a month later. Veracious decrease of the TTH level in the patients suffering from clinically manifested hypothyroidism was found out immediately after the treatment and it kept falling within one month but nevertheless the TTH level stood a little bit higher the top limit of the normal number. There was a considerable rise of the T4 level in a month after the treatment had finished, although it never reached the normal amount.

Basing on the results of the biochemical tests and the changes of health condition, the thyroid medications prescribed before were revoked for 20% of the patients, 77% of them could lessen the dose of the medicines three times. 3% of the patients took the same dose of the prescribed medicines, but their tolerance for the medicaments improved.

The results of the biochemical tests represent a clear evidence of the positive influence of acupuncture treatment on the recovery of the thyroid hormonal function. However in grave cases of clinically manifested hypothyroidism one course of the acupuncture treatment is usually not enough for the normalization of thyroid hormonal status. In such cases it is inadvisable to stop vicarious hormonal therapy and we should take repeated courses of the acupuncture treatment. The visual picture of thyroid was performed with ultrasound scanning for all patients before the treatment and, repeatedly in different terms after the treatment.

All the examined patients showed considerable positive changes of the thyroid morphometrics after the treatment.

Special attention should be drawn to originally some more explicit enlargement of the right lobe, which coincides with the facts given in special literature. According to the opinion of some researchers the lobe’s volume under 7 ml is considered to be a variant of the normal size. But our observations do not confirm the correctness of this statement. We failed to find the correlation between the thyroid volume and the explicit character of the clinical manifestations for the autoimmune dysfunction. Moreover in one case well-marked AH symptoms were found in a woman having 4 and 6 ml volume of the left and right thyroid lobes respectively.

There were explicit positive changes in the patients suffering from AT with knots. The most vivid example is the results of treatment in case of the patient Z. Before the treatment a knot in her thyroid gland had been increasing gradually, the woman was recommended to undergo a surgery, but she refused. In March–April, 1997 she took the full course of the acupuncture treatment which resulted in the vanishing of practically all clinical manifestations of the disease, the thyroid dimensions lessened significantly, but the “knot’s” size didn’t change. In August and September of that year the patient took a repeated course of acupuncture, regardless of the satisfactory condition of her health. That time the size of the knot decreased after the treatment. On the 21 of October, 1998 the knot in the left lobe of the gland practically wasn’t seen, the patient had no complaints, she was able-bodied and she has been followed up until now. There were the same results of the other AT patients’ follow-up.

Catamnestic follow-up of 15 patients aged under 10, 22 patients aged under 7 and 32 children under 5 hasn't shown a single case of developing complications in our patients, including 12 sick persons who refused to undergo a surgery prescribed for them. On this ground we can consider acupuncture as an effective and safe organ-friendly method of recovery treatment for thyroid dysfunctions both of the diffuse and knot hypertrophy of the organ.

At the same time catamnestic follow-up shows that approximately 50% of the patients under treatment had recurrent diseases within 6-12 months after the treatment. The recidivism percentage reduced twice in case of excluding provocative factors. Recidivism usually is connected with pregnancy, women are often in worse condition before or during menses, in menopause period.

Persistent urogenital infections are matters of importance too, although there is no specific clinical manifestation of the infection. About 20% of the patients followed up stopped suffering from recurrent autoimmune thyroid dysfunctions after treatment of bacterial, viral or fungal urogenital infections that the patients had been unaware thereof before. Exacerbations of chronic skin diseases are also important in provoking secondary manifestations of thyroid dysfunctions. Typical triggers are stresses especially when psycho-emotional lesions dominate in the ailment's development. The identification and well-timed elimination of the associate diseases result in considerable enhancement of acupuncture efficiency in course of the recovery treatment for thyroid dysfunctions.

On the other hand both hypo and hyper thyroidism significantly burdens the process of some bodily diseases. AT increases the contingency of recidivism and recurrent frequency of some chronic pain syndromes, hypertonic disease, vertebro-basal deficiency, gastroenterologic and broncho-pulmonary diseases. Inclusion of corporal and auricular points, which are effected to normalize the dysfunctions mentioned above, into acupuncture prescription list boosts the efficiency of the treatment for thyroid dysfunctions and diminish the frequency of their recidivism.

The represented results prove that the acupuncture application is safe and expedient to treat thyroid dysfunctions developing as the result of both diffuse and knot forms of this organ's hyperplasia. Despite the lack of my own data about the autoantibody identification there are all the reasons to presume that the most part of the treated and followed up patients suffered from autoimmune thyroid dysfunctions. The analysis of the possible sanogenetic mechanisms of the acupuncture effect is beyond the limits of this

research. However some of these factors seem to be obvious.

Firstly, we are aware about the stress-induced factor in the development of autoimmune diseases in general and AT in particular. It has been proved that the stress-limiting effect of acupuncture [Vasilenko A.M. 1985, 1987] is likely to be the basis of the acupuncture treatment for AT that is stipulated with pathogenesis. Secondly, the normalization of neuroendocrine-immune interactions (their dysfunctions has much influence on the phenomenon of autoimmunity [Vasilenko A.M. 2002] is very important in the effective mechanisms of acupuncture.

TTH receptors antibodies appear in thyroid cells in AT cases. Under the conditions of normal interactions thyroid and pituitary gland producing TTH, there exist relations based on the principle of "feedback regulation": high level of the thyroid hormone suppresses TTH secretion. The auto antibodies interacting with TTH receptors break this balance. AT is generated with the antigenospecific defect of suppressive T-lymphocytes. In case of AT suppressive T-lymphocytes are activated with corresponding antigens more weakly, but they keep being capable for normal activation with another antigene.

Being partial this defect per se is not enough for inducing an autoimmune disease. There must be some additional unfavourable influences on the immune system from "outer environment". Such influences reduce the general activity of regulatory cells which is superimposed on the T-suppressors' dysfunction that is stipulated genetically.

Besides acupuncture increases the efficiency of the natural vicarious mechanism of primary hypothyroidism through the activation of the sympathoadrenal system. The enhancement of sympathetic tonus stimulates the production of the thyrotropin-releasing hormone TRH and through this – the TTH production, promotes TTH sensibility of a thyroid gland and also boosts T4 and T3 utilization in periphery tissues.

It is worth mentioning that immediately after the end of the acupuncture treatment T4 and T3 levels in blood raised first of all while TTH index practically didn't change. Within a month after the treatment there was a veracious reduction of TTH level and further increase of T3, T4 levels reaching complete normalization in almost a half of the patients. Our Chinese colleagues [Shen et al 1999] observed the same suspended recovery of the thyroid hormonal function under an experiment's conditions, and also A.Y.Izvanova (2003) received analogous results in course of manual therapy for the patients suffering from cervical osteochondritis complicated with AT.

We can come to the conclusion that:

Acupuncture is an efficient alternative organ-friendly approach to the treatment of non-malignant thyroid diseases especially for the patients who are contraindicated to take hormones for some reasons.

Acupuncture contraindications have not been found out in the groups of the patients under examination. Acupuncture can be applied as a complement of the vicarious hormonal therapy. At the same time the medicament doses are reduced substantially and the therapeutic effect is enhanced.

As the result of the treatment course the characteristic clinical manifestations of hypo and hyper thyroidism have diminished significantly in 100% of the patients. The explicitness and resistance of the resulting clinical effect largely depends on the existence of associate diseases and provocative factors. The exclusion of these factors provides for the double decrease of the recidivism risk level.

Acupuncture effectively normalizes both hypo and hyper functional thyroid gland conditions. The recovery of the thyroid hormonal status takes place in case of both diffuse and knot forms of thyroid hyperplasia.

Repeated ultrasound examinations have shown well-marked positive changes in thyroid gland: nor-

malization of the size and volume, the organ's structure improvement, diminishing and in some cases even disappearing of knot formations.

The results of the research in the aggregate with the existing data from special literature lay the grounds for the consideration that acupuncture is such an approach to the recovery treatment of autoimmune thyroid diseases that has been fully reasoned from the pathogenetic point of view.

PRACTICAL RECOMMENDATIONS

Acupuncture is indicated for the recovery treatment of the non-complicated hormonal thyroid dysfunctions inducing diffuse and knot forms of this organ's hyperplasia which is usually consequent on an autoimmune process. The acupuncture treatment includes the usage of auricular and corporal points.

The effect on the following auricular points is recommended: 45 – thyroid gland; 22 – internal secretion glands; 28 – pituitary; 55 – shen-men; 51 – sympathetic nerve system; 34 – cerebral cortex; 23 – ovary; 97 – liver; 95 – kidney. The choice of the points is determined on the basis of the existing symptoms and the pain sensibility of the representative points on the ear conch.

in brief...

ALZHEIMER: PROTEIN BREMST NEUROTRANSMITTER

Forscher berichten nun davon, wie krankhafte Proteinablagerungen im Gehirn von Alzheimer-Patienten die Signalübertragung zwischen den Nervenzellen stören könnten.

Originalpublikation:

The APP family members are key players in S-adenosylmethionine formation by MAT2A and modify BACE1 and PSEN1 gene expression – relevance for Alzheimer's disease

THORSTEN MÜLLER ET AL.; Molecular and Cellular Proteomics, doi: 10.1074/mcp.M112.019364; 2012

GEHIRNLEISTUNG: GUTE VERNETZUNG ALS A UND O

Sprache, Sinneswahrnehmung, Gedankenbildung und Bewegung sind komplexe Aufgaben, die das Gehirn nur bewältigt, wenn die Neuronen gut vernetzt sind. Forscher haben jetzt ein molekulares Schaltersystem entdeckt, das diese Vernetzung der Nervenzellen reguliert.

Originalpublikation:

Neocortical dendritic complexity is controlled during development by NOMA-GAP-dependent inhibition of Cdc42 and activation of cofilin
S. SCHUSTER ET AL.; Genes Dev.; doi: 10.1101/gad.191593.112; 2012

EPILEPTISCHE ANFÄLLE: MEHR ALS BLOSS LEIM

Epileptische Anfälle sind wie Gewitterstürme – Nervenzellen schaukeln sich auf und elektrische Entladungen breiten sich über die Hirngebiete aus. Neurobiologen zeigen nun, dass Gliazellen das Gehirn vor epileptischen Anfällen schützen.

Originalpublikation:

CNTF-mediated preactivation of astrocytes attenuates neuronal damage and epileptiform activity in experimental epilepsy
Matthias Bechstein et al.; Experimental Neurology, doi: 10.1016/j.expneurol.2012.04.009; 2012