

## ULTRASONIC TOMOGRAPHIC DATA CONCERNING SU JOK TREATMENT OF CHRONIC LYMPHOCYTIC THYROIDITIS

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### Introduction

The growth of increasing thyroid gland pathologies is a very topical problem at the present stage of development of medicine. Increasing environmental pollution, adverse outcomes of the Chernobyl catastrophe and many other causes made diagnostics and treatment of diffuse and focal lesions of the thyroid gland in the central regions of Russia shift from a purely medical problem into a social one. Only in the Smolensk region expenditures allocated for examination and treatment of this pathology increased approximately seven- to eightfold during the period from 1985 to 1999 [8]. Introduction of ultrasonic tomography (UST) has drastically increased the number of discovered diffuse thyroid pathology (thyroiditis). As a result, there appeared a group of patients with the so-called "pseudo-nodal changes" in chronic thyroidites which complicates diagnostic and treatment tasks [11]. Allopathic medicine continues to look for an effective, cost-efficient algorithm of diagnosis and treatment of various thyroid gland pathologies. So far, few studies have discussed combined efforts of allopathic and non-traditional medicine in this field, although this is a promising direction in the complex treatment of thyroid gland disorders [9, 12, 13].

### Purpose of work

To access the results of treating chronic lymphocytic thyroiditis (microcystic changes of the parenchyma of the gland according to UST data) by Su Jok therapeutic methods.

### Research tasks

1. Theoretical explanation of the dynamic of ultrasound changes in chronic lymphocytic thyroiditis (CLT).
2. Elaboration of Su Jok techniques in this kind of pathology.
3. Assessment of therapeutic effects on the basis of UST data.
4. Theoretical explanation of obtained results using Onnuri medicine methodology.

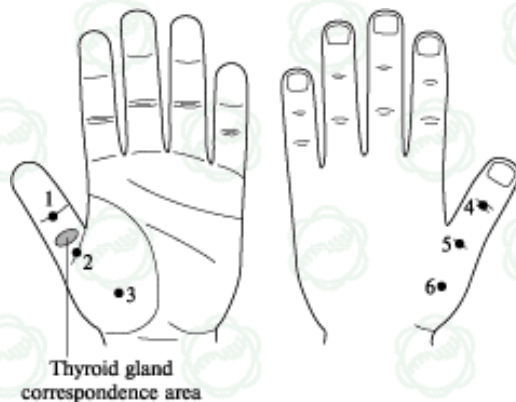
### Materials and methods

We carried out observation and treatment of seven women at the age of 20 to 52 years old who had the diagnosis of chronic lymphocytic thyroiditis. In four patients the diagnosis was morphologically verified by puncture of both lobes of the thyroid under US-control with obtaining cytologic material. In three patients the diagnosis was made on complete clinical and laboratory examination, including US findings. For all patients thyroid hormones were estimated: T3 (triiodothyronine), T4 (thyroxine), TSH. The programme of hormone estimation consisted of assessing their level prior to, immediately after treatment and six to twelve months after the last treatment course. UST was taken in two steps: the first step included US examination of the thyroid every second month during a six-month period without treatment: the second step was during treatment when US-monitoring was conducted every month. Within twelve months following the treatment, every third month US-examination was carried out with "Aloku-500" US-apparatus (Japan), by electronic linear transducer 7.5 Mhz in the "grey scale" mode by the standard method of determining linear dimensions and volume on the basis of unified protocol of description of US-picture of revealed alterations [11]. Puncture of thyroid lobes was carried out under US-control by "free hand" method with "Microfine-G25-G22" needles

(external diameter 0.4 to 0.6 mm). Obtained material was coloured by hematoxylin-eosin.

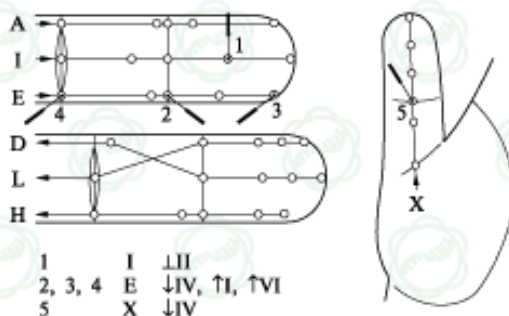
Su Jok therapy included five-stage influence on the standard correspondence systems of the hands and feet, treatment by energy points, by Six Energies. Procedures were administered every day or every other day, depending on clinical characteristics of the basic disease, patients' subjective complaints and their severity. The treatment course comprised ten procedures. Two to three courses were prescribed in succession with intervals ranging from two or three months up to six months.

Energy points were influenced chiefly by means of acupuncture accompanied - in cases of marked energy deficiency and lower general tonus of the organism - by warming up these points with minimoxas making due accentuation of the points corresponding to the thyroid gland level (Fig. 1) [1, 4, 6].



**Fig. 1.** Energy points to be accentuated in treatment of thyroid gland disorders (2, 3, 5, 6 - basic energy points; 1, 4 - additional energy points)

Metaphysical Six Energies treatment was carried out along byol-meridians of the hands and feet. In our opinion, the basic therapeutic approach to this disease is combined sedation of Humidity in the thyroid structure. Since the thyroid is assigned to the category of Heat in UM-Hotness, the first needle is to be introduced vertically in the Heat point on the brain byol-meridian. After this, on the UM-Heat meridian we apply the following prescription: sedation of Humidity, tonification of Wind, tonification of Coldness. The controlling needle on the Conception byol-meridian is sedation of Humidity (Fig. 2) [3, 5].



**Fig. 2.** Sedation of Humidity in thyroid gland structure by the combination method

Importance of working with correspondence points on one's own have been explained to each patient which found further realization in the Spirit of Intention to help oneself and considerably enhanced the effectiveness of treatment. The patients were given recommendations to use for self-treatment the massage of the thyroid correspondence points and areas corresponding to the related spinal segment (cervical spine level) in the standard correspondence systems of the hands and feet. Additionally: seeds application to these areas for the night.

### Research results

All patients complained of discomfort in the neck region, periodically appearing sense of compression in the thyroid. General complaints of fast fatigue, unquiet sleep and irritability were reported by five patients. Prior to treatment two patients had daily diffuse headaches and increased sweating in the first half of the day. On examination: three patients had first degree thyroid (WHO classification of 1994), four had zero degree. Prior to treatment the thyroid's size had not changed before.

By the end of the third course of treatment the following results could be noted: first degree hyperplasia was revealed in two

patients, zero degree in four patient. The thyroid decrease in one patient might be the result of cancelling her summer holiday in the south.

For all seven patients thyroid hormone indices were estimated prior to, during and after treatment. The results are shown in Table 1.

Terms	No treatment		Treatment			After treatment			Hormone norm
	3 months	6 months	The end of the 1st course	The end of the 2nd course	The end of the 3rd course	3 months	6 months	12 months	
T3 (triiodothyronine)	1,58 +0,31	1,56 +0,40	1,61+0,23	1,66+0,44	1,72+0,35	1,70 +0,47	1,71 +0,51	1,73 +0,36	1,2-2,8
T4 (thyroxine)	136,1 +6,0	135,7 +6,3	140,7+5,6	142,0+5,2	144,3+5,8	141,7 +6,6	143,9 +7,0	144,5 +6,2	60-160
TSH	2,06 +0,5	2,09 +0,8	2,12+0,9	2,13+0,9	2,13+0,71	2,11 +0,61	2,10 +0,61	2,09 +0,83	0,17-4,06

*Table 1. Thyroid hormone level in Su Jok context*

As can be seen in Table 1, in the "no treatment" column hormone fluctuations do not reflect any statistically reliable dynamics. In all the patients they are within normal limits. After the first treatment course the hormone level tends to increase noticeably. The same tendency can be tracked after the second and third treatment courses.

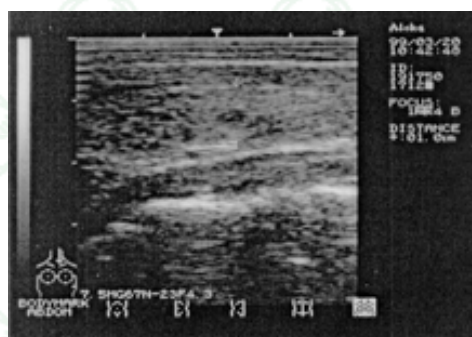
Within the first year following the treatment the hormone level gets stabilized. Because of a small number of cases, we do not think it possible to make statistically reliable conclusions, it would suffice to point to the positive increase of hormones during treatment in all patients which, beyond doubt, has a preferentive effect with hypothyrosis.

All patients were referred by their doctors to US-examination for scrinning-diagnosis. In three patients I to II degree hyperplasia was revealed, in one - II degree hyperplasia. In three patients the thyroid's size did not increase according to UST.

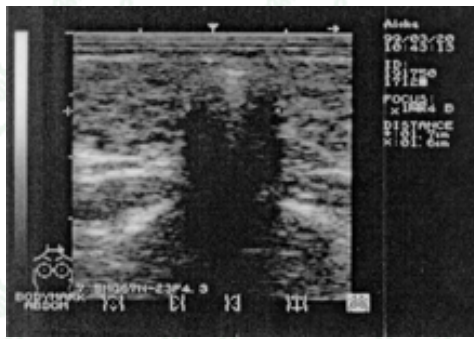
In all seven cases there were echostructural changes in both thyroid lobes: multiple hypoechogenic roundish 2 to 5 mm diameter formations, merging in some regions (Photo 1). Gross-granular parenchymal structure in other portions. No clear-cut nodulations. On further US-examination in three and six months five patients showed stable negative dynamics: the number of hypoechogenic structures in the lobes were constantly growing (Photo 2), their echogenic character getting lower. Some formations changed their internal structure for the anechogenic one which could be assessed as cystic changes (Photo 3). In two patients there were no changes of echostructure.



*Photo 1. Ultrasound tomography of right thyroid lobe (longitudinal position of the sensor) before treatment*



*Photo 2. Ultrasound tomography of left thyroid lobe (longitudinal position of the sensor) before treatment*



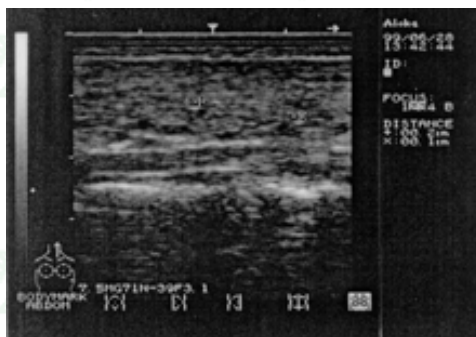
**Photo 3.** *Ultrasound tomography of thyroid lobes (cross-sectional position of the sensor) before treatment*

US picture of changes in chronic lymphocytic thyroiditis can be substantiated by thyroid tissue pathomorphism findings in case of pathology. Parenchymal follicular structure is deformed by infiltrations of interlobular and interfollicular connective tissue with lymphocytes and plasma cells. Focal destruction of epithelium is observed, there are also lymphocytic infiltrations. Not infrequently, the basal membrane is desructed without inflammation [10]. These findings of pathologic anatomy account for appearance of hypoechogenic regions on US-display. Pathological development enhances the degree of infiltration of interfollicular connective tissue which results in further echogenic decrease up to anechogenic (cystic) structure of pathology sites on US-examination. Along with infiltration parts there are hyperplastic changes of follicular cells with epithelium layer folds in interfollicular stroma; there are uneven fibrosis zones which can appear on US-display as calcinate-type inclusions (dense echo-positive linear inclusions) [11].

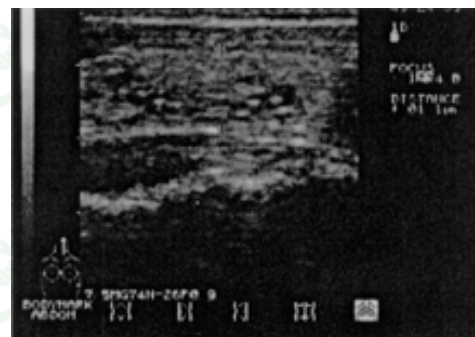
Revealed changes caused iatrogenic impairment in a patient's mental and emotional sphere [7]. Those patients who formerly refused to regard themselves as ill and rejected treatment, connecting their complaints with overstudy, professional exposures, social and domestic problems, on revealing negative dynamics by US methods expressed the desire to undergo treatment but ruled out intake of thyroid hormones.

Taking the foregoing into account, we offered a monotherapy technique based on Su Jok acupuncture.

US findings were accepted as an objective method of assessing the effectiveness of Su Jok therapy. Our conclusions are not based on the patients' statements of feeling better, although all of them reported considerable decrease of discomfort in the neck region, four patients pointed to disappearance of headaches and sweating, and enhanced efficiency right after the first treatment course. However, since this research work was meant to exclude subjective evaluation of Su Jok therapeutic effects, we relied upon UST findings. All studies were recorded on videoprinter in standard positions. After the first treatment course in four patient we noted the appearance of another kind of echostructure replacing previous cystic or hypoechogenic formations. Those were individual calcinate-type echo-positive linear 1 to 2 mm long inclusions (Photo 4). In three patients echostructure did not change by the end of the first course. By the end of the second treatment course the number of such calcinate-type inclusions was much greater in three patients. In one woman their number grew considerably (10 to 15 in both lobes). In two patients analogous individual inclusions appeared for the first time. Only in one woman the thyroid echostructure was without change. By the end of the third course in five patients the number of inclusions reached 30 to 40 in both lobes (Photo 5). One patient displayed individual calcinates, another - partially hypogenic echostructure. (These patients produced no US dynamics).



**Photo 4.** *Ultrasound tomography of left thyroid lobe (longitudinal position of the sensor) after first treatment course*



**Photo 5.** *Ultrasound tomography of left thyroid lobe (longitudinal position of the sensor) after second treatment course*

The given approaches were applied as basic in dealing with a group of patients with cystic changes in the thyroid gland. Analysis of energy constitutions revealed that the majority of the patients with cystic thyroid changes had the constitution of excessive UM-Humidity and UM-Heat energies. The treatment removed a number of subjective and objective disorders: weakness, increased sweating, headaches, periodic diarrhea, rhinitis which is dynamically confirmed by longitudinal observations of the patients and is indicative of the patients' energy constitutions being corrected.

The results of treatment have driven us to the conclusion that the basic pathogenic energy of a cyst, Humidity, was corrected primarily by the energy of Coldness (multiple calcinates). In the given example, the sanogenic mechanism is clearly demonstrated, namely, out of the two energies of Wind and Coldness offered by combined techniques, the organism has chosen Coldness energy as the most rational to remove the dominating pathogenic energy of Humidity in the thyroid structure.

### **Conslusions**

According to UST, cystic changes in the thyroid were consistently replaced by focal parenchymal calcynate-type induration. This is connected with disappearance of indications of inflammatory infiltration in the thyroid and their replacement by marked focal fibrosis of the tissue. Such an outcome is optimal with the given nosologic form of the disease in medical practice. From the theoretical standpoint, of course, the ideal result would be complete disappearance of infiltration areas and restoration of the normal structure of the thyroid gland. This is possible, however, when CLT is "caught" at the initial stage, autoimmune response is minimal and autoantibody titre low. At this stage clinical symptoms are scarce and specifically unpronounced, patients do not turn for qualified medical help and undergo treatment for other disorders (neurocirculatory dystonia, chronic fatigue syndrome, etc.). To summarize the above-mentioned, we can conclude that:

1. Su Jok therapy, including five-stage influence on the correspondence systems of the hands and feet, treatment by energy points and Six Energy treatment are highly effective for treating cystic changes of the thyroid in chronic lymphocytic thyroiditis;
2. Su Jok acupuncture allows to evaluate an organism's sanogenic mechanisms in CLT, which, in turn, is an important predictive factor (however, for the results to be objective a greater number of patients should be observed for a longer (5 to 8 years) period of time);
3. The level of thyroid hormones (T3, T4, TSH) tends to increase during treatment;
4. UST is highly effective for objectification of the results of treating CLT by Su Jok therapeutic techniques;
5. Appearance of calcinates in the parenchyma of the thyroid can be assessed as a positive effect of treatment;
6. Successful application of the discussed techniques demonstrates potential expediency of Su Jok treatment for individual cystic nodules of the thyroid which is extremely important for chosing the least invasive method of treatment in this category of patients.

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