
SU JOK THERAPY FOR STRESS DISORDERS OF VARIOUS GENESIS

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Introduction

At present a considerable portion of the population suffers from stress-related disorders which is the major social problem in the society and acquires the epidemic scope. Every person has had a stressful experience, but the majority have a vague idea of what it actually is.

In the English language, "stress" means "pressure", "strain", "tension". The first scientific work on this problem was published in 1936 by Hans Selie under the title "Syndrome caused by various harmful agents".

Selie described three stages of this condition:

First - alarm reaction with the mobilization of all resources of an organism, increased hormone excretion, in particular adrenaline, by the endocrine glands, and enhanced absorption of oxygen and sugar by the cells and tissues.

Second - resistance, when due to prior mobilization of protective forces an organism manages to cope successfully with stressful situations (primarily without any visible impairment of health).

And the third stage - exhaustion, when too prolonged or intensive a struggle with arising problems results in impairment of the organism's adaptive abilities, opening the way to development of most varied diseases.

Every human being has his or her own levels of possible reserves. One and the same stimulus causes a temporarily disorder in one person, and a serious illness in another.

The most common indications of stress are as follows:

1. insomnia,
2. headache,
3. allergies,
4. nausea, heartburn, constipation,
5. spasm of the jaw muscles, teeth-grinding,
6. back pain, spasm of muscles of the neck,
7. chronic fatigue,
8. fits of dizziness,
9. higher blood pressure,
10. depression, irritability.

In spite of a rather long history of research work and accumulation of considerable bulk of factual data, the problem of diagnosing and treatment of stress has remained unsolved and topical so far. An important practical problem is the need for prolonged treatment which often results in phenomena such as drug intoxication, pharmacological and psychological dependency.

In the majority of cases treatment of stress is carried out basing on psychotropic medication with sedative, anxiolytic and antidepressive effects which, apart from negative consequences of their prolonged use, is inevitably accompanied by well-known side-effects of psychotropic preparations making their prescription to working people impossible.

The present work is an attempt to correct stress by Su Jok therapy that, being simple, universal and highly effective, also has the great advantage of having no side effects.

MATERIALS AND METHODS OF RESEARCH

Object of research

Stressed patients, 65 persons in all, served as the material of this research work. All the subjects were males, their age varying from 18 to 57 years old.

The patients were investigated at the chair of non-pharmacological treatment methods and clinical physiology of Moscow Medical I.M.Sechenov Academy.

Basic research methods: clinico-psychopathological, clinico-catamnestic, psychodiagnostic, and mathematico-statistical.

Psychodiagnostic investigation

When studying personality indices, especially those referring to mental and somatic conditions, along with a clinical interview with filling in a structured account of complex medico-psychological investigation, a number of psychodiagnostic tests were used, basically: Standardized personality study method - SPSM, colour-choice test, colour relationships test - CRT. Besides these psychodiagnostic methods the WAM method was used too (well-being, activity, mood).

Physiological investigation

In order to access the vegetative tonus and vegetative support of activity (A.M.Vein, A.D.Solovieva, O.A. Kolosova, 1981) a set of vegetative indices was used, namely, heart rate (HR), systolic arterial pressure (SAP), diastolic arterial pressure (DAP), respiratory rate (RR). The device "Omron" was used for measuring heart rate and blood pressure; besides, electrocardiographic examination using one-channel portable cardiograph "Micromed" EK 1TTs-01 was carried out. On the obtained segments of ECGs the R-R intervals were measured to be followed by a comparative variational analysis of R-R before, and after, treatment. In order to access the bioelectric activity of the brain the patients underwent encephalography on an eight-channel encephalograph "Medikor", with the standard application of electrodes according to 10-20 scheme.

Statistical analysis

Data were processed on a personal computer basing on variational analysis programme calculating Student's criterion, and also components of correlational and discriminant analysis.

TREATMENT

Su Jok therapy was administered every other day, the average course consisted of 12 sessions. Each procedure lasted 25 to 30 minutes. The prescription was made strictly on an individual basis, taking into consideration the

patient's complaints, clinical manifestations of disease, and also relationship with time energies and Onnuri pulse diagnosis data. Byol-meridians, byol-chakras, correspondence areas of the auricles, hands and feet were employed for treatment. Energy flow therapy was employed along palm lines (using round magnets and stick magnets), Eight Ki treatment (microneedle therapy, warming up, massage, seed therapy, etc.)

Thus for treatment of headache the usual procedures were to sedate Heat and tonify Coldness in the AH-Heat meridian structure (Fig. 1) or tonify Hotness energy on byol-meridians (Fig. 2) and on the UM-Hotness byol-chakra (Fig. 3), sedate Darkness energy on the brain and spinal cord byol-meridians (Fig. 4).

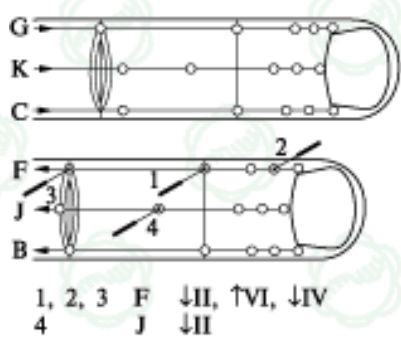


Fig. 1. Sedation of branch Heat in the small intestine meridian structure

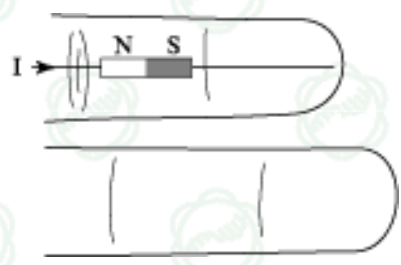


Fig. 2. Tonification of Hotness energy on the brain byol-meridian



Fig. 3. Tonification of UM-Hotness byol-chakra

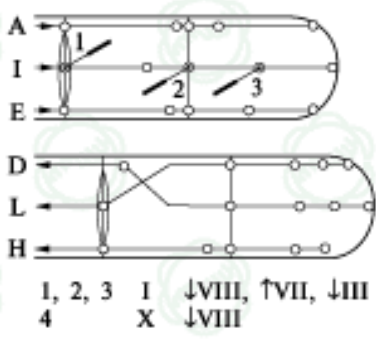


Fig. 4. Sedation of Darkness energy on the brain byol-meridian



For treating insomnia: sedation of Vertical Core meridian in the "insect" correspondence system (Fig. 5), sedation of Fear and tonification of Calmness on the UM-Hotness byol-chakra (Fig. 6, 7).

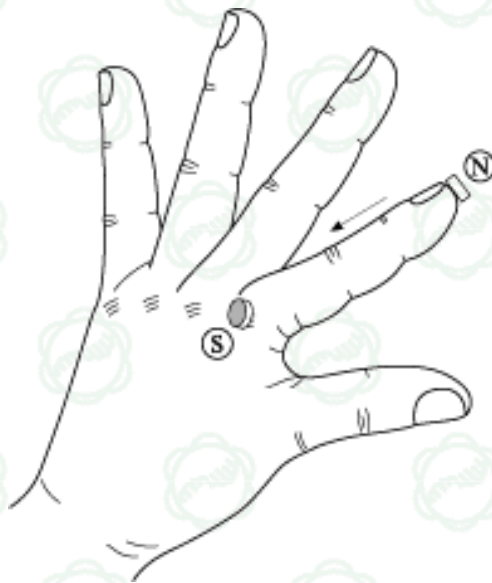


Fig. 5. Sedation of Vertical Core byol-meridian (the northern pole magnet is placed to the upper external byol-chakra, the southern pole magnet - to the lower external byol-chakra)

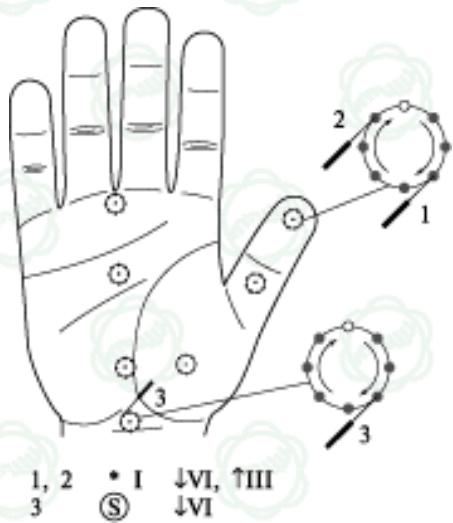


Fig. 6. Sedation of Fear on UM-Hotness byol-chakra

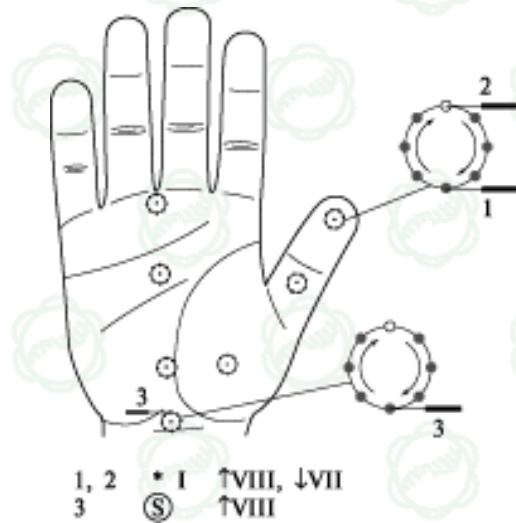


Fig. 7. Tonification of Calmness on UM-Hotness byol-chakra

For treating spinal pains, muscle spasms: tonification of Hotness and sedation of Coldness on back Central border meridian, stimulation of correspondence areas of particular spinal segments in the standard system, mini-system, "insect" system (Fig. 8).



Fig. 8. Tonification of Hotness on the back Central border byol-meridian in the "insect" system

RESEARCH RESULTS AND DISCUSSION

The results of Su Jok treatment confirm the considerable effectiveness of this method for treating patients with stress-related disorders of various genesis. The overall effectiveness in the treatment group was 74.7%, in the control group - 25.9%. These findings correlate with the data of psychodiagnostic and physiological investigations that were carried out twice - before and after treatment.

Scale number or substitute	Scale name	Average scores of the subjects		
		Types of personality profiles (T-scores)		
		A	B	C
L	Tendency to improve self-impression	47,6±1,7	44,7±0,3	42,1±1,1
F	Tendency to stress problems	71,2±5,1	60,5±6,5	59,4±3,8
•	Tendency to avoid sincerity	50,2±0,8	46,2±8,9	53,7±4,3
1	Excessive control and preoccupation with one's condition	72,0±3,7	71,8±5,1	61,4±2,9
2	Depression	71,3±4,8	78,8±6,7	70,4±3,8
3	Emotional lability	70,1±3,3	55,8±3,6	63,4±2,9
4	Impulsiveness	58,6±4,5	73,6±4,2	82,1±5,8
5	Feminine (masculine) style of adjustment	57,2±7,1	64,6±2,9	63,2±1,7
6	Attitudinal rigidity	59,4±5,7	68,3±3,6	58,8±4,5
7	Anxiety	61,7±1,9	76,0±6,7	76,4±4,6
8	Individualization	55,9±3,6	74,4±3,1	75,8±2,8
9	Optimism and activity	51,3±5,8	62,1±3,9	55,7±7,2

0	Introversion	63,2±3,4	60,5±7,2	56,4±4,8
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Table 1. Personality traits (SPSM test)

Scale number or substitute	Scale name	Average scores of the subjects			
		Types of personality profiles (T-scores)			
		A	B	C	Control
L	Tendency to improve self-impression	45,4±1,9*	42,8±1,2*	40,9±2,0	43,8±1,7
F	Tendency to stress problems	60,8±4,7*	58,4±3,9*	60,1±2,9*	67,7±4,2
•	Tendency to avoid sincerity	49,7±1,2*	45,7±2,9	52,8±3,6*	51,8±3,1
1	Excessive control and preoccupation with one's condition	62,9±2,1*	67,32±4,7*	58,2±3,2*	71,4±2,7
2	Depression	54,7±3,7*	69,4±5,6	67,2±3,2*	76,9±2,1
3	Emotional lability	64,6±2,9*	54,2±3,2	63,7±3,1	69,4±1,7
4	Impulsiveness	60,1±3,7	68,4±4,3*	76,1±4,9	77,4±3,1
5	Feminine (masculine) style of adjustment	66,9±6,4*	63,8±3,3	66,4±1,9	54,7±2,9
6	Attitudinal rigidity	62,9±4,7	65,4±2,8	64,1±3,2*	71,0±2,1
7	Anxiety	56,1±2,1*	62,7±5,4	61,8±6,0*	67,1±3,9
8	Individualization	54,7±2,6	68,1±1,6*	64,9±3,1*	67,9±2,4
9	Optimism and activity	67,4±4,7*	62,8±4,2	60,1±5,4*	59,1±3,7
0	Introversion	60,1±2,9	63,4±6,1	62,1±3,6*	58,4±1,7

* $p < 0,05$

Table 2. Personality traits after treatment (SPSM test)

The psychodiagnostic investigation of stressed patients revealed three basic personality profiles. The average profile for all groups before treatment is shown in Table 1.

Analysing personality profiles after treatment (Table 2), one can observe a tendency to decrease the pitch of the average profile almost on all scales (to a greater extent on scales 1, 2 - Type A; scales 2, 7, 1 - Type B; 2, 3, 7 - type C).

Results of examination based on M.Luscher's colour test prove that in all studied groups of patients there was a deviation from the autogenous norm (Table 3, 4). This index is the highest in Type C persons which, in its turn, points to marked nervous and mental tension of these subjects, personal disharmony, absence of optimal forms of psychological protection. In the same group there was observed the trophotropic type of response, lower stability of self-regulation. The heteronomic index did not have any significant differences in the compared groups of patients, and its value was indicative of a certain tendency to lower their activity, independence, self-sufficiency. Type A and B subjects were characterized by more pronounced eccentricity, which was manifest in these persons' intention to catch both positive and negative signals coming from the environment in order to

correct their position in society, choose the right behavioural pattern, receive support and assistance from outside. The Type C patients displayed more concentration that found expression in higher preoccupation with oneself, one's unresolved problems, subjective experiences and feelings. In this group the correlation of personality traits was more stable and balanced (personality traits were consistent with one another). The efficiency level of the patients with Type A and B personality profiles was significantly higher than in the Type C group which first of all can be accounted for by value orientations and attitudes of these patients to work.

Indices	Types of personality profiles		
	A	B	C
Coefficient of total deviation from autogenous norm (TD)	11,7±3,5	12,4±5,9	14,8±6,4
Vegetative coefficient (CV)	1,2±0,4	1,4±0,5	0,8±0,5
Heteronomy Autonomy (H)	-3,2±2,8	-2,6±1,4	-3,1±1,6
Concentricity Eccentricity (C)	-0,1±2,7	1,6±3,2	2,7±4,8
Balance of personality traits (PT)	0,6±1,5	0,4±4,7	-1,1±2,3
Balance of vegetative system (VB)	3,8±1,9	4,7±3,5	0,9±5,3
Efficiency (E)	16,8±1,4	1,9±3,1	3,8±2,1
Presence of stressful state (S)	10,2±6,1	9,8±4,5	11,6±7,1

Table 3. Indices of M.Luscher's colour test before treatment

Indices	Types of personality profiles			
	A	B	C	Control
Coefficient of total deviation from autogenous norm (TD)	9,6±2,7*	11,2±4,1	13,6±5,9	13,8±5,1
Vegetative coefficient (CV)	1,1±0,7	1,5±0,4	0,6±0,5	1,4±0,4
Heteronomy Autonomy (H)	-3,3±2,4	2,5±1,2	-3,0±1,5	-3,1±1,7
Concentricity Eccentricity (C)	-1,1±1,9*	1,4±2,9	2,1±3,6*	2,4±4,1
Balance of personality traits (PT)	0,7±1,4	0,6±4,4*	-1,0±2,1	0,9±2,6
Balance of vegetative system (VB)	3,4±1,1*	4,9±3,2	1,1±4,6	2,9±3,8
Efficiency (E)	17,4±1,1*	3,7±4,0*	4,9±1,9*	1,8±2,0
Presence of stressful state (S)	3,0±0,7*	6,4±5,6*	5,1±6,5*	10,8±6,4

* $p < 0,05$

Table 4. Indices of M.Luscher's colour test after treatment

The CRT findings show that correction of stress by the Su Jok method leads to statistically reliable changes in psychosemantic sphere. In the main group (Su Jok therapy) treatment resulted in a more positive perception of the images such as "Ideal self", "My family", and "Myself in the future", whereas the attitude toward the image

of "Myself in the past" became more negative; in the control group (placebo) such changes did not occur. According to Luscher's test and WAM, in all the subjects after Su Jok therapy there is a tendency to emotional stabilization, lower level of stress, enhanced efficiency, reliably higher indices of activity (by 34.8%, $p < 0.05$), well-being (by 38.7%, $p < 0.05$), mood (by 39.3%, $p < 0.05$).

The dynamics of physiological indices provides the data that prove that Su Jok therapy is effective for certain indices (SAP, DAP, RR), making them normal, whereas in the control group no such changes were revealed (Table 5).

	Before treatment					After treatment				
	HR	R-R	SAP	DAP	RR	HR	R-R	SAP	DAP	RR
T.gr.	68±3*	42±4	128±5	69±2	16±1*	65±3*	41±3	122±4*	65±3	14±2
C.gr.	68±2*	44±3*	127±6	72±4*	15±3	67±4*	44±2*	128±4*	73±2*	16±2

HR - heart rate

R-R - ECG interval

SAP - systolic arterial pressure

DAP - diastolic arterial pressure

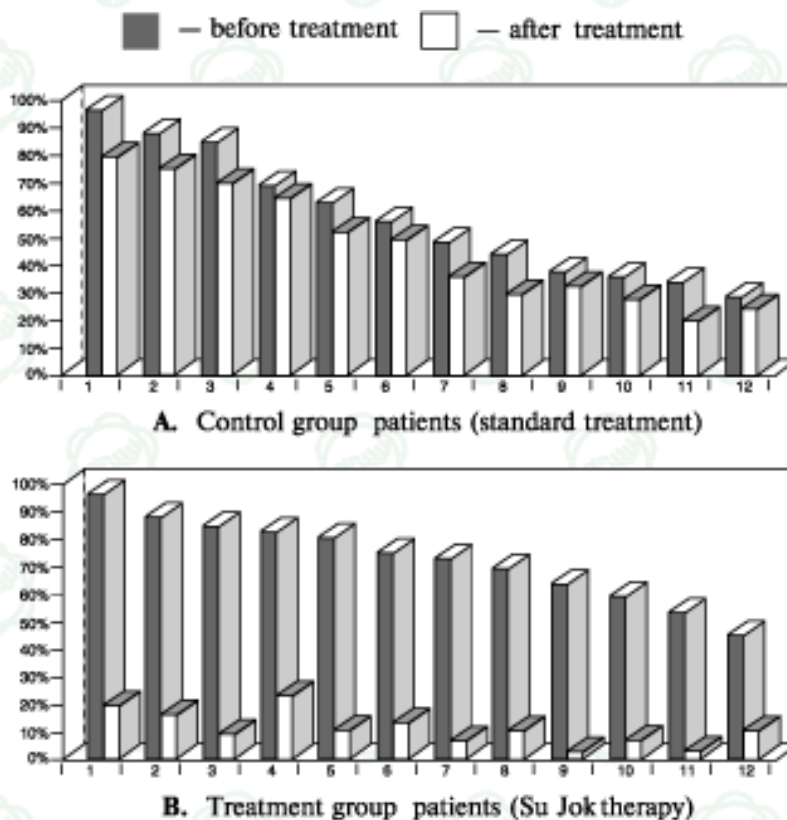
RR - respiratory rate

** - reliability $p < 0.05$*

Table 5. Dynamics of physiological indices

An analysis of encephalograms showed that no specific diffuse changes of the brain's bioelectric activity were discovered, in seven patients there were slight diffuse changes of EEGs which was accounted for by functional imbalance.

The effect of treatment was evaluated according to the patients' particular complaints (Fig. 9). Studying the dynamics of the patients' complaints in the control group (placebo) did not allow to determine statistically reliable changes (Fig. 9A) in contrast to the main group (Fig. 9B) in which Su Jok therapy resulted in statistically reliable decrease of pronouncedness of stress symptoms. These data correlate with reliable ($p < 0.05$) data of clinico-psychological investigations carried out after treatment.



Patients' complaints:

1. *Enhanced exhaustion*
2. *High-pitch response to acute stimulus*
3. *Sleep disturbances*
4. *Irritability*
5. *Reminiscences*
6. *Enhanced alertness*
7. *Nightmares reflecting psychic trauma's fabula*
8. *Meteorolability*
9. *AD fluctuations*
10. *Internal constraint*
11. *Headaches*
12. *Hyperhydrosis*

Fig. 9. *Dynamics of complaints of the control (A) and treatment (B) group patients*

Therefore, these data prove the high effectiveness of Su Jok therapy for treatment of stress-related disorders.

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