

Assistance for doctor
Medical innovative technologies
Reflexophysiotherapy manual
Multifunctional clinical diagnostics
Part 1
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In the manual the theoretical fundamentals are represented and information about the methods of diagnostics of energetic channels on variants of additional diagnostics are systematized. The detailed description of Nakatani method is given.

For doctors of different specialities, who use reflexotherapy in their practice.

INTRODUCTION

In many clinics and on health resorts of our country reflexophysiotherapy (RPT) is successfully combined with medicinal therapy, psychotherapy, i.e. it is the constituent of the complex treatment of patients. Such approach has proved to be the most rational and perspective, as it allows to essentially reduce the dosage of pharmaceuticals (at combination of RPT with many pharmaceuticals the original synergism is observed). Besides RPT produces the pronounced antiallergic effect, that allows in series of cases to prevent allergic reactions at application of RPT in combination with medicaments treatment.

Reflex principle of organism functions regulation is the universal physiological principle and in the end is directed on maintenance of the optimum level of its activity, i.e. on maintenance of homeostasis.

Nowadays the reliable data is obtained that effect on the acupuncture points and reflex zones by different physical methods can cause the following medical effects.

1. Analgesic effect (hypalgesia, less often analgesia).
2. Normalization of correlation or reinforced generation of some sorts of neurohumoral substances.
3. Improvement of microcirculation in many organs and systems.
4. Normalization of arterial and venous pressure.
5. Antispastic effect mainly on unstripped muscles, including normalizing effect on the alimentary canal and uterus.
6. Normalization of brain and heart functions (according to EEG, ECG and other examinations).
7. Rise of immunity and resistance to infections.
8. Reduction of abstinence syndrome at drug addiction.
9. Antidepressive and sedative effect.

The basic condition of reflexophysiotherapy efficiency is the estimation of the functional state of the organism on the basis of evaluation of the meridians energetic characteristics.

The methods of electropuncture diagnostics which are applied nowadays can be divided into two groups.

1. Methods based on the measurement of reaction on the stimulating effect (measurement of electrodermal resistance — EDR) or reaction on temperature exposure in biologically active points (BAP).
2. Methods based on the measurement of physical characteristics of points state without external exposure (potential, capacity, temperature, reflection coefficients of electromagnetic waves).

Let's view in detail the method of electropuncture diagnostic of the functional state of the person organism which is applied nowadays most frequently — Nakatani method.

DIFFERENTIAL DIAGNOSTICS

Nowadays the EP-diagnostics (EPD) has been widely adopted in many spheres of medicine. It is explained by great self-descriptiveness of electropuncture methods of diagnostics, especially, when it is a question of functional disturbances. EP-diagnostic attracts in series of cases by its apparent simplicity. However if the doctor wants to receive at his disposal really effective variants of treatment this kind of diagnostic should be treated very carefully.

However there are cases, when the doctor, having conducted the research and not mastering properly the "deciphering", takes the liberty of making out the diagnosis on the basis of conducted

EPD, the accuracy of which is rather doubtful. And by such scant knowledge, that the average doctor possesses nowadays on the given problem, such conclusions constitute particular danger for health of the patient that is being diagnosed.

Unfortunately, only few are interested in the fact, that learning of the so-called "Chinese medicine" takes 10-15 years for Chinese themselves. Even the most ingenious pupil is not capable of mastering this knowledge on month's courses.

There is only one way out for the time being: on one hand, a doctor, who has been industrious and bold enough to study "alternative" methods of diagnostics and treatment should do it gradually, systematically and, first of all, thoughtfully, not making venturesome decisions with respect to patients; on the other hand, those experts, who possess sufficient knowledge, should periodically publish specialized literature, conduct regular seminars on the given direction in medicine, and, what is the most important, control their disciples. Certainly, it is not enough for training the expert, but it will allow to avoid or to considerably reduce appearance of "mortally dangerous healers" on the modern medical market.

Let's view the basic provisions of diagnostics and differential diagnostics and its place in the clinical practice. Nakatani Test is one of the constituents of differential-diagnostic methods, which allows to define only functional state of the person organism system and to judge only indirectly about possible morphological changes.

In traditional Chinese medicine the diagnostics is based on analysis of external manifestations of illness and on this base the degree and character of pathological changes inside the organism is defined.

There are five main methods of diagnostics: inspection, auscultation and olfaction, inquiry and palpation. These five methods can not be separated and applied in isolation. They significantly supplement each other. Only by application of all five methods of diagnostics can the full and correct understanding of the disease be gained. Disregard of any of the method or excessive keenness on one of them is completely unacceptable.

Unfortunately, majority of the doctors practicing EP-diagnostics restrict themselves to the indications of the computer or schemes of "normative corridors", and even do not strive at all to penetrate into the functional and energetic state of organs and systems, do not understand, that the isolated functioning of any organ without the other systems of the organism is impossible and do not always take into account activity of channels during measurements.

Essence of normative corridor

What do measurements of EDR in representative (diagnostic) points really give us, what do the deviations from the normative corridor to this or that side mean? First of all it is necessary to size up, what is implied by "norm" and in what cases the deviations can occur.

At carrying out the diagnostics on Nakatani method those values of EDR are considered to be "normal", which have deviations from the mean value (sum total of all EDR values in 24 representative points divided by number of points) no more than 7%.

The deviations can occur in six cases:

- 1) at lesion of the organ;
- 2) at lesion of the channel internal course;
- 3) at lesion of the channel external course;
- 4) at lesion of the specific channel;
- 5) at lesion of the longitudinal LUO-channel;

6) at tendency of conjugate channels to compensate the function of the affected channel.

For example, at exceeding the normative corridor in the gall bladder point on 20 units there is hyperfunctioning on one out of four items. By this single deviation we can on no account affirm that there is a direct lesion of the organ, and it is incompetently to speak about cholecystitis or cholangitis, what, by the way, inexperienced doctors permanently do. After carrying out the EDR further actions of the doctor should correspond to actions of an expert on Chinese medicine, i.e. inspection, inquiry, palpation and analysis of transition of lesion is also necessary.

To understand, if any channel or organ is affected, it is necessary to know well the corresponding symptomatology, to orient yourselves in leading syndromes and to know how to put up questions.

Nakatani test is the perfect functional diagnostics, permitting the doctor to define his subsequent actions. The deviations from the normative corridor obviously show what should be taken into account first of all. Inquiry and palpation conducted after such diagnostics allow in most cases to classify pathology according to the principle "channel — organ" and "lesion — compensation".

For visualization we shall view an example. In the measuring point of stomach the exceeding of the normative corridor is fixed. At inquiry of the patient we find out first of all, if there is pain in the lower extremities along the stomach channel and abdominal pain, in epigastrium in particular, if the abdominal distention occurs etc. It is necessary to put up questions sequentially, basing yourself on accurate symptomatology of the corresponding channel. After inquiry it is necessary to proceed to palpation. If at palpation of abdominal cavity the pain in the region of epigastrium emerges, we can speak with great likelihood about a lesion of the organ "stomach". If there are no pain at palpation, but there is corresponding symptomatology — we can speak about a lesion of the channel internal course or specific channel (depending on symptoms). In severe cases a lesion of an organ (peptic ulcer), and a lesion of the external channel course (pain in thigh), and a lesion of the specific stomach channel (nasal bleeding) can be registered. Mastering well the symptomatic diagnostics and palpation, it is possible to detect with high accuracy the majority of diseases. However that is not enough. Now it is necessary to define the "quality" (character) of lesion.

Let's return a little bit back and create the continuous diagnostic chain:

- 1) Nakatani test has detected a lesion of the stomach.
- 2) The inquiry and palpation have specified – the organ "stomach" is affected.
- 3)?

The third item: peptic ulcer, erosion, oncologic pathology and other – this is the quality of lesion. There is the particular risk "to miss" the stomach polyps or oncology in general. Therefore carrying out the additional research of fibrogastroduodenoscopy – FGDS is expedient.

Why it is necessary to conduct EPD, if by the above-stated signs it is possible "to swallow the stomach pump" at once and to remove all the questions? Let's view the given aspect by items:

- at lesion of the channel external course there is no necessity for FGDS;
- very similar signs can be observed at lesion of different organs – and in this case FGDS does not give positive results;
- at detection of ulcerous defect of mucous coat of stomach by FGDS method we only establish the fact of ulcer availability and we have no idea about effect of stomach in this state on the other organs and vice versa.

Consequently the prognosis of the forthcoming treatment seems doubtful, but doubtless is the recurrence of illness in the short period of time. In most cases periodic exacerbations are connected

with two moments: with blocking of pathogenic Qi of the channel internal course or with violation of correlations between the interested organs.

EPD is the best means to define the stability of connections, and symptomatic diagnostics – to define the state of main and specific channels.

Quotation. The sixty first difficulty "Neijing" says, that the doctor, who looks at the patient's appearance and comes to know the cause of the illness, is named superior. That who auscultates the patient and comes to know the cause of the illness, is named perfect. The doctor, who asks the patient and comes to know the illness, is named handicraftsman. The doctor, who researches the pulse and comes to know the illness, is named workman. The canon says, that the one who cognates the external nature of subjects, has the perfect wisdom; but the one who cognates the internal nature of subjects, has wisdom exceeding all conceivable.

Nakatani test

Ryodoraku phenomenon

In 1950 in Osaka under the guidance of Y. Nakatani the electrophysiological researches of the functional state of body channels depending on the state of internal organs on electrical resistance in dermal points of the corresponding channels started. These researches have shown, that any changes in the internal environment are certainly reflected on the skin, and that the channels of the body behave as the sensing indicators signaling not only about the occurred danger, but also about its scales.

Measuring electrical resistance of skin in patients with inflammatory diseases of kidneys, with the help of the special instrument Y. Nakatani has found points with heightened conductivity, low electrical resistance and has named them electropervious points, and the line connecting them – Ryodoraku. Inspecting large group of ill and healthy people, he has found, that these points are revealed by kidneys disease in 9 out of 10 people that were examined, but they are practically not found out in healthy people. At the same time they coincide with points of the kidney channel, being stretched in one line. This line has been named by Y. Nakatani kidney Ryodoraku. Having inspected patients with different visceral disturbances, he has come to the conclusion, that by lung diseases the conducting line, corresponding to the classical lung channel, is well determined.

Y. Nakatani has found, that Ryodoraku, corresponding to the large intestine channel, appears sometimes by lung diseases. It explains to some extent the existence of connection "front – back" or YIN – YANG channels. Y. Nakatani and disciples came to the conclusion, that the channel has in the basis Ryodoraku phenomenon (line of heightened conductivity), that is detected especially legibly at diseases of the corresponding organs or systems. He considers that this phenomenon can be explained by viscerodermal sympathetic reflex. The impulses from visceral organs make their way to the spinal cord, then through efferent sympathetic nerves they make their way to the zones located on the skin surface, corresponding to some extent to the zones of Zakharjin-Ged (see fig. 1).

Internal organs CNS Body surface CNS Internal organs
Ryodoraku Ged's zones

Fig. 1–Comparison of Zakharjin-Ged's zones and "Ryodoraku"

Experimental researches have proved, that the application of stimulators of the sympathetic nervous system causes the increase of conductivity in a whole, and the sympathetic blockade decreases it. According to Y. Nakatani, Ryodoraku is defined as "the functional way of stimulation of series of the corresponding sympathetic nerves, caused by visceral disease", or as "the coherent path of the corresponding reactive electropervious points". If an adequate irritation is applied to the electropervious point, the impulse, in author's opinion, is spread afferently through the sympathetic nervous system, and according to J. Mackenzie contrconception (1922) the autonomous regulation of visceral organs is realized, that in the issue results in decrease of conductivity in reactive electropervious points.

In subsequent it was admitted, that Ryodoraku phenomenon is observed not only in connection with disease of an organ, but also reflects its physiological changes, therefore "pathological" and "physiological" Ryodoraku have been distinguished.

There are 12 Ryodoraku lines as well as meridians. Y. Nakatani has assigned number and lettering "H" or "F" (Hand and Foot) to each line. Thus, rather simple system was received which is very fast to acquire (table 1).

Table 1. — Designation of Ryodoraku lines (meridians) and time of their maximum activity

<i>On Nakatani</i>	<i>French</i>	<i>Chinese</i>	<i>Channel</i>	<i>Time of activity, h</i>
H1	P/I/9	Yin tai-yuan	Lungs	3-5
H2	MC/IX/7	Yin da-ling	Pericardium	19-21
H3	C/V/7	Yin shen-men	Heart	11-13
H4	IG/VI/4	Yang wan-gu	Small intestine	13-15
H5	TP/X/4	Yang yang-chi	Sanjiao (Three heaters)	21-23
H6	GI/II/5	Yang yang-xi	Large intestine	5-7
F1	RP/IV/3	Yin tai-bai	Spleen	9-11
F2	F/XII/3	Yin tai-chong	Liver	1-3
F3	R/VIII/3	Yin tai-xi	Kidney	17-19
F4	V/VII/65	Yang shu-gu	Urinary bladder	15-17
F5	VB/XI/40	Yang qiu-xu	Gall bladder	23-1
F6	E/III/42	Yang chong-yang	Stomach	7-9

RULES OF CARRING OUT THE DIAGNOSTICS

In the basis of electropuncture diagnostics (EPD) lay very sensing electrical measurements of electrodermal resistance of energetic channels. Therefore at carrying out the diagnostics it is necessary to exclude unfavorable factors, which can influence the measurement results. For successful testing (regardless of a type of the conducted diagnostics) it is necessary to follow the rules stated below:

♣ Measurements should be conducted in comfortable conditions, in the state of physical and mental rest of the patient, not earlier than in 1,5-2 hours after having meal.

♣ In the room, where diagnostics is carried out, the roentgen equipment, microwave and ultrasound instruments, instruments for diathermy, ozonators and ultra-violet emitters should not be switched on.

♣ The floor in the room for carrying out the EPD should not be charged electrostatically! By contact of bare feet with electrostatically charged floor the static electricity is absorbed and its voltage in some cases can make up several thousand volt. The floors with synthetic covering or carpets of synthetic fibers are unsuitable for the same reason. If the floor remains electrostatic, the patient should put his feet on a wooden support.

♣ The patient should not be in the electromagnetic alternating field of neon lamps or sit near to other electrical light sources. The electric incandescence lamps should be not less than 30 cm away from the head of the person that is being examined. In the labile patients the measurement results often turn out to be heightened, if the incandescence lamp is switched on in immediate proximity to the head

of the patient. The lamps with the metal screen enhance the radiance of the alternating field with frequency 50 Hz, if there is no general grounding.

☞ At inspection the patient should sit on a convenient chair, which, as far as possible, should be not less than 30 cm away from the wall, if there is electric wiring in the wall behind a chair and there is no general grounding. It is desirable, that the chair be wooden. It is necessary to select the upholstery made of leather or cloth. The synthetic fabric can be used as upholstery only if it does not accumulate static electricity.

☞ In order the energy exchange during measurements remained minimum, the doctor should touch the patients as rare as possible. Dry cotton knitted gloves is a good means to decrease the contact between the doctor and patient.

Pay attention! The doctor can change figures of testing, if he touches a probe with bare hand.

About the patient

It is recommended to conduct EPD on the undamaged, healthy skin. Patients with extensive acute and chronic dermal diseases can be inspected only by qualified doctors, the measurements taking more time, and the results being less reliable.

At preparation to EPD the patient should follow the rules stated below:

☞ It is not advisable to take medicines 48 hours before the scheduled inspection. If according to the medical prescription it is impossible to refuse the medicines, it is necessary to inform the doctor about it. It especially concerns antibiotics, cytostatic agents, hormones etc., as these drugs, as a rule, cause great load on the organism, block regulative mechanisms and compensate the energetic state of channels, otherwise the value of organ or channel state will be obtained with allowance for action of drugs.

☞ It is inadmissible to watch TV for a long time overnight before inspection, as its radiance disturbs general energetic balance. Already after an hour of watching TV, as a rule, many values of measurement in the direction "inflammation" are clearly increased.

☞ It is desirable to take a bath in the evening before EPD, but not very hot and without admixtures.

☞ Overnight before inspection it is forbidden to use allopathic hypnotics and, first of all, barbiturates.

☞ For the EPD seance it is not recommended to dress synthetic underwear because it leads to unfavorable effects on measurement results.

☞ It is not advisable to use creams and ointments before diagnostics (even by dry skin). Ointments containing silicone disturb most of all.

☞ It is desirable not to take anesthetic drugs, as they disturb energetic balance.

☞ Taking alcoholic drinks, coffee and strong tea before measurement is impossible, as they disturb energetic balance (especially of liver) in the labile patients.

☞ It is necessary to come to the test measurements in quiet state. Diagnostics is senseless, if the patient is inspected right away after continuous driving or in a state of psychic excitement or physical fatigue.

Instructions to the patient

☞ It is necessary to take off all metal items that are on the body or on the clothes, in which the patient is inspected. They include keys, coins, metal cigarette cases, glasses, adornments (such as hair-pins, rings, chains, earrings) and watches.

- ☞ It is desirable to take off all removable prostheses from the mouth.
- ☞ Chignons, false hair and wigs, especially artificial or of artificial hair are to be taken off.
- ☞ It is obligatory to take off footwear, sockets and tie, to unbutton the collar of the shirt.

Instructions to the doctor

☞ Before starting the EPD, it is necessary to wait, till the patient adapts for the temperature of the room.

☞ Electrodes should be cleaned from sweat, remains of epithelium and metals oxide with 6% hydrogen peroxide. After drying wipe the electrodes with alcohol. If electrodes oxidized it is possible to restore their brightness with the help of abrasive cleaning pastes and then clean them once more.

☞ During testing the patient should hold the passive electrode in the hand inversely to the extremity, that is being measured.

☞ Before starting the diagnostics it is necessary to put cotton wool in the active electrode. To provide identical conditions of measurements the cotton of the active electrode should be moistened in mineral water before each measurement.

Note. In what hand should the patient hold the passive electrode? It is easy to ascertain that at measurement of the same points the different values are received depending on in what hand, right or left, the cylindrical electrode is, or it lays under the foot (for example, at measurement on the trunk). To guarantee stability of measurements, the patient holds the passive electrode always in the left hand. Only at measurements on the left hand the patient holds the passive electrode in the right hand.

Pay attention. EPD is senseless, if at measurements in points the doctor does not take into account location of points, i.e. a point is located in joint space or under a tendon etc. To exclude an error and to measure the point itself instead of adjacent region it is necessary to familiarize previously with the topography of acupuncture points. In the sections "procedure" or "technique of irritation" and atlases of acupuncture the methods of acupuncture are described. For example, point VB40 qiu-xu, depth of puncture is 1,5 cm, the end of a needle is directed to the back edge of the medial malleolus. Just at such angle with respect to the measured point the measuring probe should be located.

Carrying out the examination on Nakatani method.

Construction of Ryodoraku card.

Carrying out the measurement of conductivity in definite points of skin, it is possible to objectively determine the deviation on each channel (or Ryodoraku). According to the given theory, pathological Ryodoraku, as contrasted to physiological, has heightened or reduced conductivity. To determine it, it is necessary to measure the EDR of each Ryodoraku, to find mean value of conductivity of control points of all channels, to divide them by 24 and to construct the physiological corridor with allowance for 7% of deviation.

In representative points the value of electric current is measured. To obtain stable figures which do not depend on polarization effects on electrodes and skin, it was suggested to conduct testing at strain 12 V and maximum current in the chain of measurement (short-circuit current) 200 μ A.

In the beginning of examination the research electrode is made ready, cotton wool, wetted with isotonic solution of sodium chloride, is put in its bowl. Further it is necessary to bring the search (negative) electrode and indifferent (positive) electrode into close contact and to fulfil the calibration of the unit.

The search of points and determination of EDR in the point, that is being researched is fulfilled by method of sliding (smooth passing of the region of point by measuring electrode without pressing).

At appearance of values different from 0 on the indicator of EDR, a point is pressed by the electrode till appearance of maximum value.

Note. Usage of strong currents demands special training of an operator and carrying out the diagnostics during 1-2 s. Besides, the strain 12 V considerably exceeds threshold value of adaptation of a meridian, and consequently the additional electrical shock of a meridian is possible. In the diagnostic complex Nakatani Test the value of current is limited up to 10 μ A.

Note. Carrying out the measurement in representative points, it is important to keep to the following requirements:

- the measuring electrode should touch the body surface at a right angle to the measured point;
- the measurement should be conducted with equal pressure on the skin, but without special efforts;
- duration of measurement in each representative point should not exceed 2-3 s;
- the measurements should not be conducted right away after an exercise stress or ingestion;
- it is necessary to escape heating of measured point and one should not press or touch it frequent till the measurements begin.

To analyze the obtained measurement results in representative points Y. Nakatani has offered the special card constructed with allowance for the mean value of Ryodoraku conductivity in healthy people (fig. 2).

The parameters of measurement in each point are registered and are marked by notches on the corresponding vertical axes on Ryodoraku card. Further it is necessary to sum up the result of measurement in 24 representative points and, having divided this number by 24, to receive the average.

The average is marked on two extreme axes of the card and the obtained notches are connected with the horizontal line. Eventually relative to the middle line a corridor 1,4 cm wide is built (for the original Ryodoraku card). For convenient work we introduced the normative corridor 7% of the mean value.

The upper and lower line restrict the corridor which represents physiological norm, and if Ryodoraku values deviate from the limits of the calculated borders, Ryodoraku is considered to be pathological. If Ryodoraku value is higher than the indicated physiological limit, the given Ryodoraku is in a state of excess and if it is lower – in a state of deficiency (Hyodo M., 1975).

Y. Nakatani and colleagues consider that if all values of conductivity in the measured points are in physiological limits or a little bit deviate from the limits, the function of the vegetative nervous system is well balanced, normal. Such results are very often found in the healthy people. In ill people the considerable scatter of figures from the limits of physiological norm is observed, and with improvement of state the tendency to normalization is outlined.

The high figures can be registered right away after x-ray or gamma-irradiation, and also at ultra-violet effect (sunburn, quartz) on the large region of skin.

If the measurement results overstep the lower limit of a corridor, the channel and the corresponding organs are in the depressed state. It means that there are causes that hinder normal circulation of energy or its generation (for example, degenerative process). At deviation from the mean value:

- 1-5 units – corresponds to hypofunction, hyosecretion, hypotonia or inhibition, such figures can be observed after taking sedative or psychotropic medicines;

- 5-9 units – the I degree of degeneration, it is the evidence of small degenerative changes in the corresponding organs or tissues (for example, at myocardial infarction lowering of parameters on the heart meridian, point of myocardium, are registered);

- 9-15 units – the II degree of degeneration, it is typical for more significant degenerative processes or benign (highly differentiated) tumors;

- 15-22 units – the III degree of degeneration, corresponds to the evident degenerative process or tumor;

- 22-45 units – the IV degree of degeneration, corresponds to severe degree of the degenerative process (cirrhosis or fibrosis of an organ) with the loss of function, the similar figures are register at low differentiated tumors.

The significant scattering of parameters over the limits of physiological corridor can be observed in ill people, however with improvement of state there is a tendency to Ryodoraku normalization.

If the measured values are not within the limits of the physiological corridor, and the signs of the corresponding Ryodoraku are missing, we can speak about the latent pathological syndrome or a past earlier illness. Besides, if there is the difference of figures on one Ryodoraku between the right and left side, it is possible to define the primary side of lesion. It concerns in a whole right and left Ryodoraku and upper (hand) Ryodoraku or lower (foot) Ryodoraku.

The researches have given convincing examples, that the pathological Ryodoraku values display certain symptoms. If the measured values are not within the limits of physiological norm, and the Ryodoraku symptoms are missing, we can speak about the latent pathological syndrome or a past earlier illness. Besides if during each sequential measurement the phenomenon of deviation of one of the sides (right or left) of the paired Ryodoraku is observed, it is possible to define, on what side there are disturbances.

Note. It is very important to dwell on Ryodoraku symptoms.

In the table 2 the Ryodoraku symptoms, typical for different deviations from the normative corridor are given. However modern researches show, that if we proceed from classical symptoms of channels lesion, the overlay of two diagnostic systems (EPD and symptomatic diagnostics) on each other allows to define with high accuracy what is affected: a channel or an organ.

For example, in a diagnostic point of stomach there is deviation from the normative corridor "+7". Further, studying symptoms of the channel or organ lesion, and also symptoms of lesion of the special channel, inquiring the patient (only on symptoms concerning stomach), we receive the answer to the main question of therapy – what to treat? The matter is that therapy of an organ, specific channel and main channel differs fundamentally and it is absolutely useless to treat the organ, effecting the external course of the channel and vice versa.

It is necessary to remind, that the change of values on the channel can be connected with channel compensatory ability.

Table 2 – Ryodoraku symptoms (On M. Hyodo, 1975)

Channel	Organ or region of the body	High conductivity		Low conductivity	
		Generalized symptoms	Secondary generalized symptoms	Generalized symptoms	Secondary generalized symptoms
H1, Lung (P, I)	Nose, lungs, skin	Shoulder muscles tension, low-back pain, hot flashes to head, anal disturbances, asthma	Palpitation, ache in the region of back surface of shoulder, tonsillitis, cough	Rigor and numbness of extremities, headache, diseases of respiratory tracts, vertigo	Skin diseases, dry throat, pain in the back surface of shoulder, cough
H2, Pericardium (MC, IX)	Heart	Shoulder muscles tension	Heart diseases, constipation, pain in the shoulder	Palpitation, headache	Speech disorders, heaviness sense in the chest, burning sensation in hands
H3, Heart (C, V)	Tongue, axillary crease	Abdominal fullness, constipation, pain in the shoulder	Heaviness sense in extremities, dry throat, heart diseases, rigor in shoulders, burning sensation in hands, fever, speech disorders	Palpitation, nausea	Diseases of lower part of the chest, anxiety, speech disorders, diarrhea
H4, Small intestine (IG, VI)	Ear, joints (rheumatism)	Headache, weakness of extremities, diseases of lower abdomen, pain in the shoulder, rheumatism	Constipation, neck diseases, fever	Headache, diseases of lower abdomen	Tinnitus, hearing impairment, rigor in extremities, diarrhea

Continuation of table 2 – Ryodoraku symptoms (On M. Hyodo, 1975)

Channel	Organ or region of the body	High conductivity		Low conductivity	
		Generalized symptoms	Secondary generalized symptoms	Generalized symptoms	Secondary generalized symptoms
H5, Three heaters (TR, X)	Lymphatic system, ear	Disturbances of urination, tinnitus	Tinnitus, fever, face reddening, perspiration, sense of fatigue, laryngeal edema	Diseases of respiratory tracts, nausea	Diseases of organs of abdominal cavity, vomiting, hyperpigmentation, light fever
H6, Large intestine (GI, II)	Mouth (teeth), skin, shoulder, nose	Rigidity of shoulder muscles	Toothache and headache, abdominal pain, vertigo, sense of fatigue in hands, skin diseases	Rigidity of shoulder muscles, shoulder joint stiffness	Intestinal diseases, diarrhea, asthma, skin diseases, discomfort and anxiety, dry throat
F1, Spleen (RP, IV)	Stomach, intercostal region, brain (emotions)	Disturbance of stomach functions ("weak" stomach), joints diseases	Nose diseases, heaviness sense in abdomen, chest, food poisoning, diarrhea, constipation	Disturbance of stomach functions, skin diseases, constipation	Intestinal diseases, nausea, abdominal fullness, poor appetite, absence of appetite, diabetes
F2 Kidney (F, XII)	Genital organs, intercostal region, muscles of eye	Lumbago, insomnia, vertigo, emmeniopathy	Chest pain, diseases of eyes, diseases of genitals, general discomfort, emmeniopathy	Rigor in the region of lower extremities, vertigo, impotence, mental depression	Diseases of urinary tracts, intercostal neuralgia, hernia, collapse

Continuation of table 2 – Ryodoraku symptoms (On M. Hyodo, 1975)

Channel	Organ or region of the body	High conductivity		Low conductivity	
		Generalized symptoms	Secondary generalized symptoms	Generalized symptoms	Secondary generalized symptoms
F3 Kidney (R, VIII)	Epinephroses, ear	Malaise, nause	Dry throat, burning sense in legs	Asthenia, rigor in the region of lower extremities, impotence	Tinnitus, intestinal diseases, reduction of mental perception
F4 Urinary bladder (V, VII)	Eyes, nose, brain, hypophysis	Neck muscles rigidity, weakness of lower extremities	Diseases of back, headache, lacrimation, epilepsy, epistaxis, diseases of cerebellum	Occiput muscles rigidity, sense of heaviness and weakness in extremities, pain in the region of back	Lumbosacral radiculitis, anal disturbances, epilepsy, diseases of cerebellum
F5 Gall bladder (VB, XI)	Eyes, head	Bitter taste in the mouth, disturbances in the region of throat	Absence of appetite, irritability (excitability), fever and trembling	Diseases of eyes, vertigo	Vertigo, weakness in extremities, ataxia, rise of blood pressure
F6 Stomach (E, III)	Mouth cavity (teeth), nose, superior eyelid, mammary gland, heightened emotionality	Occiput muscles rigidity, diseases of joints and their deformity	Mastitis, dry mouth, absence of appetite, fever	Shoulder muscles rigidity, constipation, abdominal fullness, mental depression	Disturbances of stomach functions, dry mouth, abdominal pain, facial edema, trembling, diarrhea

Ryodoraku diagnostics points

According to Nakatani point of view, there is no necessity to measure each time the indications on all reactive electropervious points located on Ryodoraku, it is enough to measure the indications in points named representative measuring points. These points, grounded by Nakatani school, have the property of commonness, when the mean value of conductivity in representative points is equal to the mean value of conductivity of the whole channel. It is necessary to mention, that the majority of these points belong to Yuan points. (fig. 3 – a, b)

We give the complete list of representative points according to Y. Nakatani.

Points of YIN-channels of hand

P9 tai-yuan (Lung channel)

TOPOGRAPHY: at the radial end of the proximal radiocarpal fold, below the styloid process of radius.

POSITION OF ELECTRODE: perpendicularly to the point.

MC7 da-ling (Pericardium channel)

TOPOGRAPHY: in the middle of the radiocarpal fold, in the depression between tendons of the radial flexor muscle of wrist and palmar muscle.

POSITION OF ELECTRODE: perpendicularly to the point.

C7 shen-men (Heart channel)

TOPOGRAPHY: on the medial end of the radiocarpal fold at the ulna edge, lateral from the tendon of ulnar flexor muscle of wrist.

POSITION OF ELECTRODE: perpendicularly under the tendon of ulnar flexor muscle of wrist.

Points of YANG-channels of hand

TR4 yang-chi (Three heaters channel)

TOPOGRAPHY: on the back side of the radiocarpal fold, closer to the ulnar side, corresponding to the location of the fourth finger (in the fissure between tendons of common extensor muscle of wrist and extensor muscle of little finger).

POSITION OF ELECTRODE: perpendicularly to the point.

IG4 wan-gu (Small intestine channel)

TOPOGRAPHY: on the ulnar side of the radiocarpal joint in the depression between the styloid process of ulna and triquetral bone, on the fold end of the radiocarpal joint.

POSITION OF ELECTRODE: perpendicularly to the point (radiocarpal joint is slightly bent, the palm is directed upwards).

KGI5 yang-xi (Large intestine channel)

TOPOGRAPHY: at the level of the fold of the radiocarpal joint from the radial side, in the anatomical snuffbox, closely to the end of the styloid process of radius.

POSITION OF ELECTRODE: perpendicularly to the joint space (the fingers are straightened, the thumb is tilted upward).

Points of YIN-channels of foot

RP3 tai-bai (Spleen channel)

TOPOGRAPHY: on the medial surface of the foot, proximal and inferior from the head of the 1st metatarsal bone, in the hollow, on the junction of the red and white skin, at the level of transition of body in distal head of the 1st metatarsal bone.

POSITION OF ELECTRODE: slightly on the angle in direction to the head of the 1st metatarsal bone.

R3 tai-xi (Kidney channel)

TOPOGRAPHY: in the depression above the heel bone, between the medial malleolus and Achilles tendon.

POSITION OF ELECTRODE: perpendicularly to the point.

F3 tai-chong

TOPOGRAPHY: in the depression between the 1st and the 2nd metatarsophalangeal bones, 0,5 cun above the metatarsophalangeal joints or 2 cun behind the main joint of the toe.

POSITION OF ELECTRODE: perpendicularly to the point.

Points of YANG-channels of foot

V64 jing-gu (Urinary bladder channel)

TOPOGRAPHY: on the lateral side of the dorsum of foot, at the junction of the red and white skin, below the base of the 5th metatarsal bone.

POSITION OF ELECTRODE: perpendicularly to the point.

VB40 qiu-xu (Gall bladder channel)

TOPOGRAPHY: anterior and inferior from the lateral malleolus, over the tendons of short peroneal muscle and short extensor muscle of fingers between cuboid, navicular and 3rd cuneiform bone of tarsus.

POSITION OF ELECTRODE: slightly on the angle in direction of the lateral malleolus.

E42 chong-yang (Stomach channel)

TOPOGRAPHY: at the highest point of the dorsum of foot, where the pulsation of arteria is palpated, 5 cun above the II interdigital space.

POSITION OF ELECTRODE: perpendicularly to the point.

Interpretation of the U-SING scheme

In the literature devoted to the problems of zheng-jiu therapy the term U-SING is translated as "five primary elements". It is not quite so. Firstly, the hieroglyph "SING" means in the literal sense "to move, movement". Therefore the literal translation of the term "U-SING" is five movements or moving forces, and it expresses the idea not of the "element" as some static unit but the movement as such.

Besides the given hieroglyph has one more variant of reading – "khan" and in this case it means "row". The original form of this hieroglyph looks like a cross (fig. 4). The etymological meaning of the term "khan" is alternating rows, crossing of roads. It means, that we deal with bivariate model. Different texts say, that these are certain positions, but not substances, as it is usually represented in the

western literature, they are not primary substances of existence, of which everything consists, but simply characters meaning rows, into which everything existing in the world is divided (5 rows).

Each channel (functional system) corresponds to a particular element of U-SING cycle and depending on it interacts with the other organs. This interaction is conditioned by regularity of the orders of interrelation of five elements:

- the first main order corresponds to the constructive connection of generation of five elements, which, being external, is realized in the cyclicity circle and goes clockwise; as a result the sequential stimulation of organs occurs (Yang-tendency);

- the second main order corresponds to the destructive connection of depression of five elements, which, being internal, is realized inside the cyclicity circle (so-called "pentagram" cycle) and acts through an element; as a result depression of the subsequent organs occurs (Yin tendency). Since constructive connection is aimed at development and destructive – at depression, then, if the organism is healthy, they counterbalance each other similarly to the Yang-Yin balance.

If there is deficiency (xu) or excess (shi) in these or those organs, it is reflected in the character of their correlative connections. As a result the pathology arises, which can be of the following kinds:

1. Predominance of generation connection leads to prevalence of this or those element: if "metal" produces excessively promoting effect on "water", "water" starts to prevail (fig. 5-a).

2. Deficiency or disturbance of inter-generation connection leads to weakness of the subsequent element in the chain: if "metal" promotes "water" insufficiently, the latter becomes weaker (fig. 5-b).

3. The predominance of depression connection leads to weakness of the subsequent element in the pentagram chain: if "metal" is in excess, it produces depressing effect on "wood", therefore the latter weakens (fig. 5-c).

4. Deficiency, or disturbance of depression connection leads to prevalence of the subsequent element in the chain of pentagram connection: if "metal" depresses "wood" insufficiently, the latter becomes stronger (fig. 5-d).

Thus, the change of any of the listed types of connection results in imbalance of U-SING cycle. This process can be considerably aggravated if there are disturbances in several types of connections.

It is necessary to point to the fact that, if the general structure of an organism homeostasis balance is in normative parameters, the nominal types of connections of U-SING cycle are balanced. By any disease the character of its circulation, according to the Yang-Yin theory, is in the frameworks of interrelation of these forces. Dynamics of clinical behaviour can be explained only from positions of inter-generation (constructive connection), or inter-destruction (destructive connection), or combination of these both types of connections within the framework of a cycle of five elements.

As an example let's view a syndrome of liver excess.

Excitation of liver ("wood") entails intensification of blood circulation (heart, "fire"). It makes, on the one hand, high demands to the system of digestion (spleen, "earth"), and on the other hand, it is moderated by the excited state of the liver. Besides the intensive cardiac activity demands energy, which comes from lungs ("metal") in the form of oxygen and other air components; increase in digestion entails intensification of respiration (especially in the case of deficiency of the function of blood circulation), and lungs, in their turn, absorb the energy of liver; besides, the increase of digestion function produces depressing effect on the humoral system (kidneys, "water"). The increased function of lungs and tissues gas exchange stimulates kidneys activity, and this, in its turn, supports the excited state of liver, in which the additional amount of blood, deposited in the spleen, is pumped; besides the kidneys, being in the state of increased function, "moderate" cardiac activity, and good respiratory function reduces excitation of liver etc.

The situation of interaction of organs and movement of the originated process represented in the above mentioned model is the reflection of excess syndrome (fullness) or Yang syndrome. If we analyze the course of reaction in the case, when the original emptiness of liver takes place, the syndrome developing in a chain is characterized as the syndrome of deficiency (Yin).

In this connection further explanations of U-SING pentagram analysis rule are necessary. The main stages of this analysis are:

1. Analysis of organs (channels) of the Yang system and their correlation.
2. Studying of disturbances in Yin organs (channels).

Both in the first and in the second case each organ (channel) is viewed in connection with the rest. For example, let's study connections of liver (Yin system): liver→heart; liver→spleen – pancreas; liver→lungs, liver→kidneys (fig. 6). The same concerns the channels of the Yang system (for example: stomach→large intestine; stomach→urinary bladder; stomach→gall bladder; stomach→small intestine).

4. If it is determined (according to results of diagnostics), that there are affected organs (channels) in both systems (Yang and Yin), the conclusion can be made about lesion of one of the "elements" entirely (according to the principle internal – external). For example, if the lesion of liver and stomach is revealed, we can assert that there is "breakdown" at the level of the LUO-point: either liver→gall bladder, or spleen – pancreas→stomach. Two variants are possible: either the pathogenic factor has penetrated inside from outside, or came out from the depth. But in any case the pathogenic factor can move only through "its own sluice"! The liver has only two routes to the stomach (in the given, concrete case): liver→gall bladder→stomach (fig. 7 – a), liver→spleen – pancreas →stomach (fig. 7 – b). There are no other variants. Everything is very simple. All other connections are viewed according to the same principle.

There is one more aspect concerning U-SING system, which because of the inexplicable causes is practically not considered in western literature. This is the rule of seven transitions. We cite this rule (perfect translation from Chinese, made by D.A Dubrovin, "Difficult items of classical Chinese medicine"):

Quotation. The 53-rd difficulty says: "In the Treatises it is said, that if the illness makes seven transitions, the death comes. If the illness circulates between adjacent organs-palaces of zang, the ill will live. How is it to be explained? The answer: "Seven transitions" mean transitions on direct destructive connections in the pentagram of U-SING cycle. Transitions between adjacent zang-organs mean transition from "Mother" to "Son".

How it is to be understood? For example, the heart disease passes into lungs, from lungs it passes into the liver, from the liver it passes into the spleen, from the spleen it passes into kidneys, and from kidneys it passes into the heart. None of the zang-organs is affected twice. So, it is said, that seven such transitions result in death. For example, the heart disease passes into the spleen, from the spleen it passes into lungs, from lungs it passes into kidneys, from kidneys it passes into the liver, and from the liver it passes into the heart. These are transitions according to the rule "mother – son"; they come to the end and start again at once, like a circle, having no beginning and no end. It means life.

Quotation. Comments: Jii Taynjang comments, that harmful "xu" from the heart – "fire" passes into lungs – "metal". From them it passes into the liver – to "wood". From it it passes to the spleen – "earth". From it it passes to kidneys – "water". From them it passes to the heart – "fire". Heart – "fire" receives from "water" a repeated wound, that is the first reason. Lungs – "metal" receive then a repeated wound from "fire", that is the second reason. Thus, the transitions start from the heart, return to it and reach lungs twice. So there are seven transitions resulting in death. However none of zang-organs receive harmful xu twice successively.

Quotation. The 54-th difficulty says: How to explain the fact that the illnesses of zang-storehouse-organs are intractable and illnesses of fu-palaces are easy to treat? The answer: the illnesses of zang-organs are intractable because they

are transmitted on destructive connections. The illnesses of fu organs are easy to treat, because they are transmitted from "mother" to "son". It coincides with the rules of seven transitions.

Quotation. Comments: mister Zang in "Jian Zheng" (explanation of the right) says: "the vital force Qi corresponding to dense zang organs, clears itself and does not flow out from them. When zang organs are taken ill, the Qi essence is necessarily wounded and the illness takes the chronic form. It causes intractability of disease. For fu organs their root Qi passes from one fu-palace into another, but the illness is completely captured in them, localized and thus it does not increase. It causes rather easy curability of disease."

U-SING pentagram

The given kind of the channel state analysis according to deviations from the normative corridor is a relative innovation. At least, the similar approach is unknown to the authors. This variant of information read-out is applied by us since 1994 and have given a good account of itself. It allows to see the general picture of the organism state, and also to define easy a degree of lesion of hollow and dense organs and combined lesions. The purpose of work with U-SING pentagram comes to the following:

1. The digital value of the upper and lower limit of the normative corridor is defined.
2. The values of deviations, that are below the given line, are subtracted from the digital value of the lower normative line and they are marked by "-", i.e. "hypofunction".
3. The digital value of the upper limit of the normative corridor is subtracted from the values that are above the upper limit of the normative corridor, and they are marked by "+", i.e. "hyperfunction".
4. All deviations with the corresponding signs are inserted into U-SING pentagram.

For clearness we shall give the following example. For the patient the normative corridor in the limits 61-50 is determined. On deviations we have the following values: small intestine: -21 (right), -14 (left), lungs: -8 (right), liver: +16 from both sides, gall bladder: +9 from both sides. The rest of calculations are not made and are not inserted in U-SING pentagram, as the values are in the limits of the normative corridor (fig. 8). It will not be difficult to define, where is the cause and where is the effect and to conduct maximum effective treatment for those who is familiar with the system. In this case we have the following picture: the element "wood" (liver – gall bladder) is in hyperfunctioning, the element "fire" (small intestine) and the element "metal" (lungs) are in hypofunction. According to the rules of U-SING, the pathogenic factor (in the given concrete case) could move only in such a way:

1. Stagnation in duodenum (persistent spasm).
2. Bile, having no outflow in duodenum, accumulates and stagnates in gall bladder.
3. As a result of bile accumulation in the gall bladder an "explosion of sluice" – the LUO-point – occurs between the gall bladder and liver (the return of bile in the liver), the break-through of the pathogenic factor from Yang (external syndrome) into Yin (internal syndrome) takes place.
4. "Fire inflaming" of the liver results in weakening of lungs controlling ability (typical inverse destructive connection) (fig. 9).

The clinical trial (FGDS, US etc.) detected for the given patient the ulcer of the bulb of duodenum and cholecystocholangitis. The given pathology was accompanied by infrequent respiration and pressure in the chest.

It should be stated that U-SING pentagram looks more clearly and demonstrative than Ryodoraku card, though both graphs operate with identical values.

FUNCTIONAL CONNECTIONS BETWEEN ORGANS

There are two main types of organs: Zang and Fu.

ZANG-organs are dense, parenchymatous organs, they belong to Yin. Their main functions are transformation and storing of nutrients, vital energy Qi, blood and body fluid. The FU-organs are hollow and belong to Yang, their main functions are to digest and absorb food, and also to excrete different slags from the organism.

Quotation. The 11 chapter of "Su Weng" says: "Five Zang-organs store the cleared nutrient Qi, not exhausting it; they fill, but do not overfill. Six Fu-organs send water and food, not storing it, therefore they can digest it, but are not overfilled".

There exist close interrelation between Zang and Fu organs on channels and collaterals of the body not only as between separate entities but also between Zang and Fu organs collectively and between Zang-Fu organs on the one hand and the sense organs and tissues of the organism on the other. The theory of Zang-Fu was created not on the basis of anatomical researches but mainly on study of physiological and pathological manifestations with involvement and analysis of the richest clinical experience.

Interrelations between ZANG-FU organs

The network of channels and vessels of the body (JIN-LUO) serves to support the dynamical functional connection between different Zang-Fu organs. We have already mentioned one type of connections – external-internal, which is realized in the pairs of channels (systems) belonging to the same element.

Besides there exist series of connections between Zang and Fu organs.

Such close interrelation means, that at affection of any organ or at penetration of the pathogenic factor into it the latter can on channels take root into the other organs. It is especially typical of organs with external-internal connections.

Interrelations between FU-organs

The main function of six Fu-organs is the process of digestion. The stomach receives food, digests it and transfers it further to the large intestine, which continues its digestion and separates "clear" from "muddy". Clear – it is nutrients and fluid, which feed and wet the whole organism, the other part of the fluid gets into the urinary bladder and is excreted. Muddy – it is slags which the large intestine receives and excretes from the organism in the form of fecal output.

The process of digestion depends mainly on the ability of liver and gall bladder to sustain the free flow of Qi; function of Sanjiao as to coordination of digestion and distribution of Juan Qi; body fluids and integrated function of all Zang-Fu organs. It is "favorable" for Zang-Fu organs, when they "pure and open", and it is "unfavorable", when they are "dirty and choked".

The close interrelations of fu-organs become apparent in pathology as well. Thus, excessive heat in the stomach results in dehydration of body fluids and in constipations. The constipation owing to dryness of the intestine manifests itself in nausea and vomiting. Hyperactivity of fire in the gall bladder and liver results in affection of the stomach and "floating" of its Qi upward, what causes nausea, vomiting, regurgitation by food and bile.

Interrelations of Zang organs

Now let's view the classical schemes of organs interrelations. At study of these schemes it is necessary to pay attention to combination of connections "Yin-Yin-Yang" and "Yang-Yang-Yin". For example, lungs→kidneys, lungs→liver, lungs→heart, lungs→spleen, lungs→large intestine. These very connections determine the direction of the pathogenic factor and degree of lesion in hollow and dense organs. At study of Ryodoraku card and U-SING pentagram these connections should be taken into account.

LUNGS and HEART

Heart controls blood and lungs control Qi (activity, functional beginning) of the whole organism. The treatise "Su-Weng" says: "the lungs are open in all directions towards 100 vessels". Heart controls blood vessels, which gather in lungs to take natural Qi, i.e. air. Therefore, the circulation of blood depends on Qi activity but at the same time Qi is distributed in the whole organism through the blood. Without Qi the blood becomes stagnant, and without blood there is no material basis and Qi disperses fast. Heart and lungs are located in Shan-jiao (upper heater), therefore at feverish diseases the pathogen can directly move from lungs to the heart, what shows their close connection.

Note

Pathology, connected with disturbance of interrelation of lungs and heart

The weakness of Qi of lungs – "the energy of respiration" in cardiac vessels is insufficient. In chronic cases there are the emptiness of heart and lungs. Qi of the heart is not capable of actuating the blood of the heart. The blocking of blood of the heart which is accompanied by cardiac pains and pains in the chest occurs. This state corresponds to stenocardia with susceptibility to myocardial infarction.

Deficiency of Qi of the heart – the blood is blocked, its circulation is insufficient, it becomes stagnant in the vessels of lungs. As a result the disturbance of functions of lungs Qi occurs. It causes cough. This state corresponds to cardiac asthma.

The strong heat of heart wounds Yin of lungs. In this case excitation, insomnia, cough and hemoptysis arise. According to western medicine such states belong to different groups of diseases, first of all: insufficiency of right ventricle of heart with the phenomena of stagnation in lungs, pulmonary infarction, tuberculosis, chronic bronchitis etc.

LUNGS and SPLEEN

The spleen is a source of acquired Qi and blood, on which the force of Qi of lungs depends and it controls processes of transportation and transformation of Qi. On the other hand, the ability of the spleen to fulfil its functions depends on dispersing and descending ability of lungs. The spleen is a source of Qi, lungs are turning point of Qi. Accordingly, the spleen has the ability of sustaining lungs and strengthening the Qi of lungs.

The spleen governs the transportation of fluid. But water (liquid) metabolism of the organism depends also on dilating and clearing ability of lungs. At disturbance of the transportation function of the spleen the possibility of water passage disappears, it becomes stagnant, causing mucoid sputum, what in its turn influences the function of "dilating and cleansing" of Qi of lungs; as a result cough and dyspnea arise. Therefore in Chinese medicine is said: "The spleen is a source of mucus, and lungs are its container".

Note

Pathology connected with disturbance of interrelation between lungs and spleen

In the state of emptiness of Qi of lungs the function of their dilatation is disturbed, what influences adversely fluids metabolism of the organism. It leads to accumulation of the waste fluids obtained at metabolism in the organisms and blocked because of disturbances originated as a result of excess of moisture of Qi of spleen.

Thus edemas, abdominal distention, liquid stool and general weakness are observed. Such clinical presentation arises rather often.

LUNGS and LIVER

At balanced state of the organism the Qi of lungs descends, and the Qi of the liver ascends. In such a way the harmony of main vital processes of the organism is achieved. The liver channel comes out, as well as blood vessels, from the liver upwards through the diaphragm and enters lungs. Rise and spreading of Qi of the liver, and also cleansing and taking downwards the Qi of lungs belong to the same extent to functions of rise and lowering of all the Qi in the organism. If Qi of the liver is depressed, it can be transformed into the fire, which ascends and dries up the moisture of lungs – so-called "implantation of fire of the liver into lungs". On the other hand, if Qi of lungs does not descend, it leads to development of pathogenic dryness and heat, which exhaust Yin of kidneys and liver and result in hyperactivity of Yang of the liver.

Note

Pathology connected with disturbance of interrelation between lungs and liver

The most frequent symptoms, originating at disturbances of the given connection are cough, dyspnea, hemoptysis, sense of repletion and chest pain and pain in the region of ribs. If the function of cleansing and taking downwards the Qi of lungs fails, excessively strong "raising and dilatation of the liver function" can arise. In this case the symptoms such as sense of repletion and aching chest pains and pains in the region of ribs, giddiness and headaches appear.

LUNGS and KIDNEYS

Disturbance of the dispersing and lowering function of lungs or disturbance of kidneys ability to excrete water not only disturb water metabolism, but also aggravate each other. Lungs control respiration, and kidneys – consumption of Qi. If the Qi of the kidneys is weakened, the inhaled Qi can not lower itself downwards and remains "floating on the surface", what causes dyspnea. The continuous deficit of Qi of lungs disturbs the absorbing capacity of kidneys. Besides, YIN-fluid of lungs and kidneys feed each other, and Yin of kidneys is a "root" of all the YIN-fluid of the organism. The deficit of Yin of lungs can damage Yin of kidneys, and the deficit of Yin of kidneys results in decrease of feeding of Yin of lungs, that results eventually in combined deficit of both organs. As a result of disturbances of these connections the accumulation of water can occur.

Note

Pathology, connected with interrelation of lungs and kidneys

"The cold of water is directed at lungs" – the blocked fluids of the organism ascend, pressing the lungs. In this case Yang of kidneys cannot provide the rise of transparent fluids and lowering of muddy ones. Clinical signs accompanying such state are dyspnea or orthopnea.

At deficiency of Qi of kidneys the ability to take Qi, coming at respiration, disappears. In this case it ascends, causing dyspnea.

The deficiency of Qi of lungs influences frequently the YIN of kidneys and vice versa: by not strong enough YIN of kidneys the abundant fire arises owing to the emptiness of YIN, which can burn the YIN of lungs or to cause its damage. The YIN of lungs can be in a state of emptiness at tuberculosis for example.

At lingering diseases the situation can arise, when the kidneys and lungs will be in a state of emptiness. Thus the following signs appear: weakness in thighs and knees, spermatorrhea or impotency in men, amenorrhea in women.

SPLEEN and HEART

Heart controls blood and spleen supplies nutrients for its formation. The functions of spleen depend on blood flow in it, and at the same time cardiac work demands nutrients which are generated in the spleen. In clinical picture their close interrelations are traced, for example, when the Qi of spleen is in a state of emptiness, the disturbance of the transport function of spleen takes place and the formation of blood is insufficient. It leads to originating of emptiness of blood. After long absence of appetite the patients find out signs of deficiency of blood of heart: palpitation, weakening of memory, pale unhealthy complexion, weak pulse.

The prolonged futile unproductive meditations can result in damaging for blood of heart. Conditioned by this the emptiness of blood results in poor supply of spleen by blood, what in its turn causes the deficiency of Qi of spleen and creates additional obstacles to formation of blood plasma. It leads to intensification of deficiency of blood of heart, and finally a state of emptiness of heart and spleen arises.

SPLEEN and LIVER

The spleen controls transportation and transformation and the liver sustains the free flow of Qi, what is the compulsory condition for the coordinated work of the whole digestive apparatus. Besides if the function of the spleen is normal and there are enough nutrients, the blood "prosper" and the liver works actively.

In the person who is in a state of mental depression or anxiety the disturbance of the function of transition and excretion of harmful substances by liver occurs. It leads to disturbance of process of regulation of spleen and stomach function and the imbalance between liver and spleen or liver and stomach arises. Such state can arise as a result of excitation, the most frequent signs in such cases are pain in the region of ribs and in the chest, absence of appetite, meteorism, eructation and sense of repletion after meal. This state corresponds to disturbance of function of transportation and excretion of toxins by liver. Thereby the pathological effect on normal regulation of spleen and stomach function is produced.

The liver disease can influence the spleen, and vice versa, the spleen disease effects the liver. For example, at deficiency of Qi of spleen the deterioration of the function of digestion and assimilation of nutrients ensues that entails deterioration of regeneration of blood. This disturbance can produce negative effect on the liver, the deficiency of blood of liver arises. The deterioration of spleen transportation function and blocking of fluids occurs. In some time there arises heat inside the organism, which turns into the state of damp and heat, connecting with stagnant fluid, and in the form of "steam" blocks the middle heater. It can adversely effect the function of liver as to the transportation and excretion of fluid and result in cessation of bile coming into bowels; the latter ascends in a direction opposite to its normal flow, and comes into blood, causing jaundice.

SPLEEN and KIDNEYS

Spleen is a source of acquired Qi, and kidneys – of inherent Qi. According to the main provisions of Chinese medicine the spleen starts to function only after birth of the child; the kidneys start to work even before birth. Acquired Qi permanently enlarges the store of inherent Qi, and inherent Qi is the material basis for the formation of acquired Qi. Besides at deficiency of YANG of kidneys the YANG of spleen does not get warmed thoroughly, and at deficiency of YANG of spleen the predominance of YIN and cold inside the organism develops, what disturbs the YANG of kidneys. Thus the mutual influence of spleen and pancreas on each other before and after the birth occurs.

Note

*Pathology connected with disturbance of
interrelation of spleen and kidneys*

At deficiency of YANG of kidneys it can not warm YANG of spleen, therefore the state of deficiency of spleen arises.

At deficiency of YANG of spleen the transformation of nutrient can not be realized, what in its turn leads to deficiency of YANG of kidneys. The state of emptiness of both spleen and kidneys arises which is met rather often in clinical practice.

HEART and LIVER

These organs have close interrelation not only with respect to emotions, but also with respect to circulation.

Heart controls blood, and the liver stores it. Only by sufficient blood in the heart the liver can store blood and redistribute it according to needs of the organism. By deficiency of blood of heart the state of emptiness of blood of liver arises. The deficiency of blood of liver also ensues the weakening of blood of heart.

The liver sustains free flow of Qi and "cleans" routes of circulation of Qi and blood, what produces rather favorable effect on circulation and facilitates the cardiac work in transition of blood in vessels.

At pathology the heart and liver influence each other very often, and the disorder in one organ often leads to dysfunction of the other.

Clinical signs of the state of deficiency of blood of the heart in the spirit of traditional Chinese medicine are the following: the accelerated heart rhythm, palpitation, pale complexion. Simultaneously in most cases there also arises the state of deficiency of blood of liver accompanied by giddiness, flashing in eyes, absence of brightness of nails, tremor of arms and legs etc.

The liver is responsible for "transition" and "excretion". Heart manages consciousness. The influence of liver on mental activity of the person is connected with the functions of "transition" and "excretion". The psychical and mental activity of the person is influenced simultaneously by heart and lungs, and the function of the latter depends on supply of blood. At disease of both dense organs, heart and lungs, the disturbances of person's psychical state arise permanently as well. The patients with deficiency of blood of lungs suffer from giddiness, flashing in eyes, absence of brightness of nails, quite often from insomnia or frequent dreams, state of general anxiety and timidity. At deficiency of Qi of heart the state "of the abundant emptiness and fire inside" arises frequently. Thus, besides the above mentioned signs, the accelerated heart rhythm, the palpitation arise and simultaneously signs of illness, connected with emptiness: nervousness, inclination to fits of anger, giddiness, reddening of eyes etc.

HEART and KIDNEYS

Heart controls fire, it is located in SHAN-JIAO (upper heater) and belongs to YANG. The kidneys control water, they are located in SYA-JIAO (lower heater) and belong to YIN. In the norm YANG of the heart descends and heats YIN, and YIN of kidneys ascends and wets YANG. This double-sided activating-depressing connection is called "harmony of heart and kidneys". By deficiency of fire of heart, it does not go downwards to kidneys to heat YANG of kidneys. In this case the dilatation of water of kidneys does not occur and it does not ascend to heart, as it is necessary. As a result the palpitation, acceleration of cardiac rate, edemas arise. In Chinese medicine this state is called "Qi of water suppresses the heart". At deficiency of water of kidneys it can not ascend to sustain Yin of heart. It results in abnormally great intensification of YANG of heart accompanied by the following signs: palpitation, state of excitation, insomnia, heightened intensity of night dreams etc. In Chinese

medicine this state is called "absence of connection between heart and kidneys". For the same reason the state of emptiness of YIN in combination with abundant fire can occur, typical sign of which is the appearance of bubbles in the mouth and on the tongue.

Heart manages consciousness, the kidneys are responsible for bones and "generation of cerebrum" (marrow and spinal cord), which they send to brain. Therefore according to the theory of Chinese medicine the psychical and mental activity of the person depends both on heart and on kidneys. At deficiency of YIN of kidneys the YANG of heart becomes abundant (excessively strong). This state represents the syndrome mentioned above: "absence of connection between heart and kidneys". Thus such phenomena, as insomnia, weakening of memory, abnormally high activity of night dreams etc. take place.

Besides heart controls blood and circulation, and the kidneys store the essence, which activate and feed each other.

KIDNEYS and LIVER

The liver accumulates blood, the kidneys accumulate QIN (substance). The interrelation between liver and kidneys belongs mainly to substance (qin) and blood. At normal passing of vital processes in the organism the blood of liver requires the feeding of qin of kidneys. However blood can turn into qin only on condition of abundance and force of blood of liver, and in this case there is sufficient amount of substances of kidneys. If qin of kidneys is spent, it results in originating of the state of deficiency of blood of liver. However absence of the sufficient amount of blood of liver can lead to exhaustion of substance of kidneys. Thus, both dense organs, liver and kidneys, can become simultaneously weak or strong. Therefore the Chinese medicine says: "liver and kidneys have the same source".

According to the doctrine of Chinese medicine liver and kidneys belong to the lower heater. YIN and YANG of kidneys, YIN and YANG of liver influence each other. At deficiency of one of them the other comes in the pathological state of overfilling, excess; if one is in the state of excess, the other is in the state of deficiency. For example, at deficiency of YIN of kidneys there is simultaneously the deficiency of YIN of liver, what in its turn causes intensive increase of YANG of liver. This strong YANG of liver "is in the state of unrestrained movement" and causes additional damage to YIN of kidneys, therefore the state of deficiency of YIN intensifies even more.

Interrelations of organs ZANG and FU

LUNGS and LARGE INTESTINE

If QI of lungs descends, the transport ability of large intestine is normal, and its peristalsis is free, i.e. at normal passing of the regulation process of the QI of lungs, the function of large intestine also remains normal, providing its good emptying. If the intestine is choked, the process of lowering of QI of lungs is disturbed. It manifests itself in cough and sense of repletion in the chest.

If constipation arises in large intestine, it has inverse effect on the function of clarifying and taking aside the QI of lungs. At disturbance of this function of Qi of lungs, the juices of the body do not descend, causing difficulties of bowels emptying. At the state of overfilling and fever of large intestine accompanied by constipation, the state can arise, when Qi of lungs ceases to descend, what causes dyspnea.

SPLEEN and STOMACH

These organs are located in ZUNG-JIAO (middle heater) and play a main part in digestion: the stomach provides taking in and digestion of food, and spleen – its absorption and distribution. Besides the spleen regulates ascending of nutrients to heart and lungs, and the stomach regulates descending of

food masses, what provides the coordinated work of the whole digestive apparatus. The spleen – it is YIN, it "prefers dryness and does not like dampness" and stomach – it is YANG, which "prefers dampness and does not like dryness".

The spleen manages transportation and transformation, and stomach manages ingestion of the nutrients and their digestion. The spleen moves nutrients, and the stomach takes in the nutrition, stores and digests it. One organ provides transportation, the other ingestion; both unite themselves at carrying out the task of digestion, absorption and transportation of food. If the stomach does not carry out the function of digestion properly, the transport function of the spleen slows down. If the process of transformation in the spleen does not correspond to the norm, the stomach is incapable to ingest. The spleen differs by its "love to dryness and disgust for moisture" – the transportation function of the spleen is disturbed at moisture accumulation. The water moisture, which has already been accumulated, again disturbs the indicated function of the spleen. The transportation of moisture is disturbed, the patient feels general weakness, edemas arise, the stool is pulpy and formless. Simultaneously the YANG of the spleen is being unfavorably affected by moisture, what causes in the patients the absence of appetite and sense of repletion after ingestion.

"The stomach likes irrigation, it has aversion for dryness" – ingestion and digestion of food are normal providing there are sufficient amount of gastric juices. In this case there is normal gastrointestinal digestion and movement of food into bowels. When the normal function of the stomach is disturbed, the lack of digestive juices arises or "abundant fire" in the stomach takes place. In this case stomach and bowels become dry and can not be moistened. The blocking arises, accompanied by constipation, abdominal distention and abdominal pains.

HEART and SMALL INTESTINE

The heart channel originates from the heart and makes its way to the small intestine. The small intestine channel originates from it and connects with the heart. In the given case the connection is established between superficial and internal, between hollow and dense organs with the help of the corresponding channels. The excess heat in the heart can damage small intestine. On the other hand, the heat in the small intestine can ascend and damage the heart.

This internal relation between heart and small intestine becomes evident by particular pathological processes, for example at movement of fire of heart downwards to small intestine it evaporates the fluid of the organism. Thus there arises the so-called state of excess and heat of small intestine with infrequent urination and pink urine with hot evaporation. If the small intestine is in the state of heat, this heat can ascend on a meridian to the heart and "scorch" it. In this case the patient is in the state of excitation, in the mouth and on the tongue skin rash and bubbles appear.

KIDNEYS and URINARY BLADDER

The kidney and urinary bladder channels are connected with each other in the same correlation, as internal with external. The important function of urinary bladder is "evaporation", which depends on the force or weakness of the Qi of kidneys. Qi of kidneys helps urinary bladder in realization of evaporation of organism juices, and also at urination, i.e. at control of opening and closure of urinary bladder.

At sufficient amount of Qi of kidneys the urinary bladder is in full measure capable of holding urine, normally opening and closing. It is the condition of normal water metabolism in the organism. At deficiency of Qi of kidneys the urinary bladder loses ability to hold the urine. The function of opening and closure of urinary bladder is disturbed, the urination is out of control, an excessively abundant urination or urinary incontinence occur. Thus, the continence and excretion of urine depends not only on urinary bladder, but also on kidneys as dense organ, relating to this process.

LIVER and GALL BLADDER

The gall bladder is connected with liver. Their channels are also in a particular interrelation: the gall bladder corresponds to surface, and liver to internal. The gall bladder has the ability to store and to excrete the gall*. It sustains thereby digestive function of stomach and bowels. The gall fluid is generated in liver. At disturbance of the "transfer" and "excretion" function of liver changes during bilification arise. And on the other hand, the disturbance of the process of gall excretion entails inverse effect on a liver. Thus, the morbid phenomena arise in most cases simultaneously in gall bladder or liver at mutual effect of latter on each other.

So, for example, if the disturbances, connected with moisture and heat, arise, icterus appears. As a result of transition of gall in blood and tissues, dermal integument becomes yellow, bitter taste in the mouth appears. Simultaneously the signs of stagnation and blocking of Qi of liver arise, accompanied by pains in rib region, sense of repletion in the region of costal margin and giddiness.

All pharmaceuticals, "promoting the work of liver and putting in normal state its Qi", produce excretory effect on gall. This element of therapeutic experience emphasizes the close connection between liver and gall bladder.

* The notion "gall bladder" includes not only the gall bladder, but all biliary tracts. Thus after cholecystectomy one cannot speak about "disappearance of gall bladder" or its meridian.

SYMPTOMS AND SIGNS OF CHANNELS AND ORGANS LESION

For simplification of evaluation of pathology, connected with deviations from the normative corridor, we give the summary table of symptomatology. It is necessary to stress, that these are not Ryodoraku symptoms, but classical signs of lesion of organs channels.

Signs of lesion of Lung Channel

External:

Cold, rigor, fever, excessive or low sweating, stuffiness in nose; headache and pain in supraclavicular fossa, in the region of chest, shoulder and low-back pain, pain in elbow joint, forearm and radiocarpal joint; numbness and paresthesia in the region of anteriointernal surface of arm; neuritis of radial nerve; low temperature.

Internal:

Bronchial asthma with sense of heat lifting to the top of the body; cough, dyspnea, sensation of fullness in the chest; dry throat, expectoration of sputum, discoloration of urine, hyperthermia of palms; fatigue, accompanied sometimes by sensation of constraint in abdominal cavity and weak diarrhea.

Special:

The Lung channel is one of four (P, MC, JG, C) channels, which originates in the axillary crease and penetrates at once in internal, hollow and dense organs. Its trajectory is always internal. To reach the special Lung channel, pathogenic energy should pass the whole route of the main Lung channel up to the shoulder. Therefore the given disease declares itself in lesion of the main Lung channel.

Longitudinal LUO-channel:

Fullness: hot palms.

Emptiness: yawning, pollakiuria.

Organ:

Pneumonia, pleuritis, bronchitis, tuberculosis.

Signs of lesion of the Large Intestine Channel

External:

Fever, thirst, sore throat, toothache, reddening and pain in eyes; swelling of neck, pain in shoulder and in forearm; pain and rigidity of fingers; pain in radiocarpal and shoulder joints, in scapula and chest; numbness in the region of forearm, shoulder; reddening and tumescence of dorsum of hand; disturbance of the motor function of upper extremity; tension of muscles of cervical-occipital region; tinnitus and ringing in the ear, deafness.

Internal:

Pain in paraumbilical region and roaming pain in the abdominal cavity; functional disorders of large intestine, fluid stool with yellow mucus, complicated by dyspnea; inflammatory processes of upper, middle and lower respiratory tracts.

Special:

Dyspnea or asthma, distension in lateral parts of the body, sense of heat in the chest; the periodic deafness (sometimes the patient hears, sometimes not), temporary deafness caused by unnatural energy; toothache.

Longitudinal LUO-channel:

Fullness: caries, deafness.

Emptiness: cold sense in teeth, chest pain, dyspnea.

Organ:

Disturbance of large intestine patency; parasitogenic diseases of large intestine, colitis.

Signs of lesion of Stomach Channel

External:

Febrile course, malaria; redness of face, hyperhidrosis, rigor; pain in eyeballs; dryness in the nose, ulceration in the region of lips and oral cavity, diseases of throat; swelling of neck; downturned mouth; pain in the chest; reddening and pain in the region of legs (from ankle up to knee); coldness of lower extremities; headache and toothache, intercostal neuralgia, pain in mammary glands, pain in the region of front abdominal wall, front surface of femur, knee joint, crus and back of foot; sinusitis, arthritises of foot joints; neuritis of facial nerve.

Internal:

The accelerated digestion, sense of hunger; constipation; abdominal distention and sensation of repletion in it; edemas; dream disturbances; maniac psychoses; yellow urine; pains in the epigastric region, in the region of hypochondrium, navel and in the lower abdomen; eructation, dispeptic disorder; anorexia.

Special:

Epistaxis; cold sense in lips and teeth.

Longitudinal LUO-channel:

Fullness: insanity.

Emptiness: weakening of leg joints with contractions.

Organ:

Peptic ulcer of stomach, gastritis, gastroenterocolitis.

Signs of lesion of Spleen Channel

External:

Heaviness in the head and body; common sense of fever, weakness of extremities, and also weakening of muscles of the lower extremities; pain in lower jaw and cheeks; dysfunction of tongue; shiver in knees and edema of legs and feet; pain or heaviness sensation in the region of hypochondrium and chest; muscle atrophies of the lower extremities.

Internal:

Appetite loss, icterus; abdominal distention, constipation, borborygmus, sense of fatigue after meal, pain in epigastric region, watery diarrhea with mucus; splenomegaly with vomiting; dysuric disorders.

Special:

Pains in the renal region, irradiating in low abdomen and side parts of the body, inability to sleep on the back.

Longitudinal LUO-channel.

Fullness: severe pain in bowels.

Emptiness: epigastric distension.

Large LUO-channel:

Fullness: pain in the whole body.

Emptiness: weakness of all joints.

Organ:

Indigestion, pancreatitis.

Signs of lesion of Heart Channel

External:

Low-back pain, pain in the chest and middle part of forearm, in elbow joint and in little finger; intercostal neuralgia; pain and burning sensation in palms, and also coldness of hands and feet; headache, pain in eyeballs; dry throat, thirst; lymphadenopathy.

Internal:

Sensation of fullness in the chest; excitation, dyspnea, insomnia, syncopal states; mental disorders; vertigo because of insufficiency of cerebral circulation.

Special:

The given lesion declares itself in signs of lesion of the main heart channel.

Longitudinal LUO-channel:

Fullness: constraint and severe chest pain.

Emptiness: inability to speak.

Organ:

Heart pain, disturbance of cardiac rhythm; heart diseases.

Signs of lesion of Small Intestine Channel

External:

Ulcerations of mouth and tongue; pain in neck and cheeks, and also convulsive contraction of muscles of neck and occiput; edema in the region of neck and lower jaw; pain in fingers and posteroexterior surface of forearm and shoulder; pain in humeroscapular region, occiput, headache; torticollis; tinnitus, hearing impairment, deafness.

Internal:

Pain in the lower abdomen of distending character, which capture low-back; pain in the region of navel and lower abdomen; all kinds of disturbances of bowels patency; pain sensations in the testicle; nausea, vomiting, weight loss.

Special:

The given disturbance declares itself in lesion of the main meridian of small intestine.

Longitudinal LUO-channel:

Fullness: difficulty of movements in elbow and shoulder joints, inability to bend and to extend the elbow joint.

Organ:

Dispeptic disorders – dry stool, constipation, diarrhea; duodenal ulcer, duodenitis.

***Signs of lesion of
Urinary Bladder channel***

External:

Rigor and fever; headache; neck rigidity; lumbago, pain in sacral bone, femur and stiffness of femur, spasms or paresis of muscles of cruses; ischialgia, pains in foot, heel and little toe; edema of mucous membrane of nose and nasal discharge, lachrimation; pains in eyes and diseases of eye; vertigo.

Internal:

Pain in the lower part of abdominal cavity and spastic states; dysuria, retention of urine or urinary incontinence; anuria, oliguria, pollakiuria; edema and pain in the region of external genital organs.

Special:

Headache and pain in the neck; contraction and rheumatic pain in low-back and lumbar region.

Longitudinal LUO-channel:

Fullness: stuffiness in nose, rhinorrhea, headache and low-back pain.

Emptiness: rhinorrhea with transparent fluid, epistaxis.

Organ:

Cystitis, pyelonephritis, nephritis.

Signs of lesion of Kidney Channel

External:

Low-back pain, cold sensation or hyperthermia in feet, pain in soles, in the medial malleolus, internal part of crus, femur; pain in front abdominal wall, chest; weakness in legs; thirst and sore throat; pain in the lateral part of femur and back surface of leg.

Internal:

Vertigo, edema, dark grey (sallow) complexion; vague and indistinct vision; shortness of breath; noisy breathing; irritability, sleepiness; semi-liquid stool, chronic diarrhea or difficulties in

defecation (constipation); distending sensation in abdomen; symptom-complex of naupathia (sea sickness), vomiting; impotency and frigidity; asthenic state at failure of epinephroses.

Special:

Sudden heart pain, distending sensation in the chest and lateral parts of body; deglutitive problem, idiopathic irascibility, sensation of energy lifting to the diaphragm; laryngeal edema, hindering to swallow the saliva, impossibility to expectorate sputum.

Longitudinal LUO-channel:

Fullness: the patient can neither defecate nor pass urine.

Emptiness: pain in the region of kidneys.

Organ:

Disturbances of urination (polyuria, oliguria, anuria); enuresis and ischuria; pain in kidneys, ureters and urinary bladder, nephritis, pyelonephritis, cystitis.

Signs of lesion of Pericardium Channel

External:

Spasms of arms and legs; reddening of face; pain in eyeballs; swelling of armpit, contraction of elbow and arm; hyperthermia of palms; pain in the lateral region of chest with irradiation in scapular region; intercostal neuralgia.

Internal:

Sensation of fullness at the lower part of the chest; vertigo, agitation, delirious state; dysfunction of tongue, accompanied by impossibility to speak; maniacal states and other mental disorders; heart pain; pericarditis, myocarditis, neurogenic palpitation.

Special:

The given disturbance declares itself in signs of lesion of the main pericardium channel.

Longitudinal LUO-channel:

Fullness: heart pain.

Emptiness: muscular rigidity and pressure in the heart (chest).

***Signs of lesion of
Three Heaters Channel***

External:

Sore throat, pain in the cheek, reddening of eyes; pain in parotid region and lateral part of the shoulder; pain in the hand and posteroexternal part of forearm, elbow joint, scapula, neck and occiput; headache, vertigo; tinnitus, deafness, otitis, diseases of nose, mastoiditis; diseases of eyes; arthritises of joints of arms.

Internal:

Sensation of fullness in abdominal cavity, distending sensation and tension in its lower part; frequent urination, nocturnal enuresis and other dysuric disorders; disturbances of thermoregulation, fever and cold intolerance; dyspeptic disorders; edemas.

Special:

Sore throat, the tongue is "contracted" and deformed, dry mouth, heart pain, pain in external part of the arm, inability to rise the arm to the head.

Longitudinal LUO-channel:

Fullness: contraction of elbow joint.

Emptiness: weakening of elbow joint.

Signs of lesion of Gall Bladder Channel

External:

Rigor or fever; headache in temporal region and occiput; pain in supraclavicular region, pain in lateral parts of chest and abdomen; pain on the lateral surface of femur, in knee and ankle joints, in crus; edema and pain in the region of dorsum of foot and toes; malaria; "grey" face; diseases of eyes and pain in eyeballs; deafness and tinnitus; epistaxis; toothache; edema of axillary region; lymph nodes tuberculosis.

Internal:

Nausea, cholemesis; disorders of gastrointestinal tract, vomiting, bitter taste in the mouth; pain in the chest and ribs.

Special:

Severe pains in lateral parts of trunk, which impede respiration, hyperhidrosis; stabbing pain in the point VB30, that impede rising of the femur.

Longitudinal LUO-channel:

Fullness: cold cruses and feet.

Emptiness: weakness of lower extremities, inability to walk and stand up.

Organ:

Diseases of gall bladder: dyskinesias of gall bladder and bile-excreting tracts, cholecystitis,

Signs of lesion of Liver Channel

External:

Headache and vertigo; "blurring" of vision; tinnitus; fever; pain in the foot, on the internal surface of crus and femur, low-back pain, intercostal neuralgia; enuresis and ischuria, dysuric phenomena; renal pains and pains at hernias; diseases of genitals, genital itch; metropotosis and colpotosis; spastic states in the foot and arms.

Internal:

Sensation of fullness and pain at the lower part of breast, sensation of heaviness in abdominal cavity; pain in the lower abdomen; hernia; nausea, vomiting, diarrhea, anorexia, constipation; yellow urine.

Special:

Sudden severe pain in the region of genitals.

Longitudinal LUO-channel:

Fullness: scrotum and penis are lengthened.

Emptiness: sudden, intolerable itch of scrotum.

Organ:

Icterus, hepatitis, other diseases of liver; pain and "sensation of blockage" in the epigastric region.

PAIN SYNDROMES

Pains are the most frequent claims in clinical practice. According to the doctrine of Chinese medicine they arise in most cases because of blocking in the system of channels, stagnation of function of feeding and body resistance, blocking of QI and stagnation of blood. The steady, acute pains like prick of a needle are caused frequently by stagnation of blood. Pains, accompanied by simultaneous sense of tension, occur often owing to stagnation of QI. Pains, "empty sense of pain", by which the pressing of painful area brings relief, correspond in most cases to the state of emptiness. Severe pains, which become stronger at pressing on the place of their localization, correspond to the state of fullness. Pains, accompanied by need for heat, correspond to the state of cold, and accompanied by need for cold – to the state of heat. Causes of pain and their localization are various. Therefore pains have the special characteristic at different diseases.

Headaches

Headaches as a result of external diseases

Such pains arise in most cases as sudden disease. Headaches with rigidity of occiput up to the crown of head but without hyperhidrosis at superficial tense pulse, which are accompanied by hypersensibility to wind and cold, correspond to disturbance of the function of tai-yang channels, connected with cold and are caused by the energy of wind and cold. Headaches with sensation of tension, at hyperhidrosis and superficial abrupt pulse in combination with fever correspond to syndrome of headache because of wind and heat. In their basis lays the exogenous contagious pathogenic factor, connected with wind and heat, which lifts in the organism upwards. Headaches with heavy ("stony") head in combination with furred tongue and weak pulse correspond to the syndrome of headache owing to wind and damp. In their basis lays the exogenous contagious pathogenic factor, connected with wind and damp, which can lift and effect the head, displacing thus transparent YANG.

Headaches as a result of internal disturbances

This kind of pains arises only during an illness, disappearing for some time and then appearing again.

One sided headache, or pain around the orbit accompanied by the sense of constraint in the chest, corresponds to the syndrome, connected with stagnation in liver. This illness arises owing to blocking of functional source of liver and gall bladder at stagnation of QI of channels. Thus the pulse is deep and tense; by depressive disorders the headache becomes stronger.

The aching sensation in the head and eyes in combination with giddiness and tinnitus at the tense pulse is in most cases the sign of deficiency of YIN of liver, that results in intensification of YANG of liver, which lifts, bringing on headache, connected with YANG of liver. If the patient feels anxiety, burning sensation in eyes, bitter taste in the mouth, shows nervousness, his urine has yellow color, and pulse is tense and abrupt, it is the evidence of state of blocking of liver, which invokes fire, lifting to the head. Such picture of illness is named in Chinese medicine "headache owing to fire in liver".

Headaches in parietal part, accompanied by slight vomiting and tense slow pulse, point to the fact that the pathogenic factor, owing to cold, has affected liver and pericardium channels and lifts in the opposite direction, what results in originating of headache, connected with cold in liver. The pathogenic factor thus lifts in direction of the course of channels or against it.

Steady gnawing headache accompanied by photophobia, pale complexion, light tongue, weak deficient pulse points the failure of YIN and blood. In this case poor supply of head with blood takes place, i.e. it is the question of syndrome of headache, connected with emptiness of blood. Steady headache, which is accompanied by giddiness and becomes stronger, when the patient is in vertical

position, and also connected with weak pulse, corresponds to syndrome of headache, owing to emptiness of zi, at which zi can not lift to head. Headache accompanied by giddiness, nausea and sense of pressure on the chest in combination with gluey incrustation and sliding pulse, indicates the availability of stagnation of mucus and damp inside the organism, at which the ability of transparent YANG to rise up is disturbed. It is a syndrome of headache, connected with state of mucus and damp.

Chest pain and pain in the region of ribs

Chest pain

Sense of constraint in the chest with colicky pains irradiating in shoulder and back, face and lips having greenish-violet shade during the attack, are called in Chinese medicine "thoracal bi". The "disease bi" means the disease of internal organs and system of channels caused by blocking of QI under the influence of exogenous pathogenic factor. The most often met pathogenic factors are wind, cold and damp. The concept "bi" is in Chinese medicine rather wide and approximately corresponds to the concept of rheumatic group of nosological forms. There are diseases bi of tendons, bones, vessels, muscles and skin. Further, there are diseases bi of five dense organs. "Thoracal bi" means, that the mobility of YANG of the chest is restricted or there is blocking inside the organism owing to stagnation of blood.

The chest pain in combination with fever and cough is in most cases a sign of disturbance in lungs, connected with excess of mucus and fever. It corresponds in Chinese medicine to a syndrome of heat in lungs, that is equivalent to pneumonia according to terminology of western medicine.

The deeply localized excruciating pain in the chest with dense unpleasantly smelling mucus and blood in sputum is a sign that the pathogenic factor, connected with heat, is in lungs, effecting the chihui and causing their damage. It corresponds to a state of purulent pneumonia, that is equivalent to lung abscess or bronchiectasias in western medicine. Long standing stabbing pain in the same place of chest, accompanied by hemoptysis indicate stagnation of blood and blocking of QI, thus blocking of channels takes place, that is the sign of syndrome of blood stagnation.

Pains in the region of ribs

Pains and state of tension in the same place of ribs, which becomes stronger at pressing and massaging (being more light by daytime, than at night) and are accompanied by sense of fullness above the costal margin indicate the accumulation of transparent mucous fluid inside the organism. Thus the disturbance of the QI mechanism takes place, the given signs correspond to a state of mucus "being in suspended state".

Stabbing roaming pains in the region of ribs in combination with dark red color of tongue indicate the accumulation of stagnant blood inside the organism, the blocking of system of channels taking place.

Pains and sense of tension in the region of ribs in combination with psychic excitement, bitter taste in the mouth, heaviness in the head and hyperhidrosis are the evidence of liver constipation owing to blocking of QI. Pleural pains accompanied by fever and chill, in combination with bitter taste in the mouth, dryness of pharynx, giddiness and flashing before eyes correspond to a syndrome shao-yang. Hidden pains in ribs accompanied by meteorism and intestinal murmur, loss of appetite and diarrhea, and also breakdown, are typical of state of emptiness of spleen and fullness of kidneys.

Stomach pains

Stomach pains, connected with patient's urgent need for heat and fear of cold, in combination with vomiting of watery fluid and slow deep pulse indicate the disturbance connected with cold in stomach, that resulted in congelation of flow in "channel vessels". It is a "pain syndrome under the influence of cold in stomach". The stomach pains, accompanied by thirst and acid eructation, need for

cold drink, urine of red color, thick yellow incrustation on the tongue and rapid pulse indicate the accumulation of heat in the stomach, i.e. about the so-called syndrome of stomach pain, connected with heat, at which blocking of QI mechanism takes place.

The stomach pains, which weaken at pressing on the place of pain localization or after having meal, in combination with bad complexion, breakdown, weak pulse, are the signs that the functional source of the middle heater is in a state of emptiness and weakness. It is a pain syndrome owing to the emptiness of stomach. The function of stomach is weakened. Stabbing stomach pains, localized in one point, in combination with induration, palpated in depth, and black stool at unequal pulse correspond to a state of stagnation at the expense of blocked blood, besides, the disturbance of patency of "channel vessels" occurs. According to the nomenclature accepted in Chinese medicine, there is a syndrome of pain owing to stagnation of blood in this case.

The stomach pains in combination with meteorism, eructation, offensive breath, thick incrustation on the tongue and sliding pulse are signs of accumulation (blocking) of food debris, that results in disturbance of QI mechanism. It is a syndrome of pain owing to accumulation of undigested food.

Abdominal pains

Periumbilical pains, that weaken under the influence of heat and become stronger at cold, (the patient prefers heat and has pleasant sensation at pressure on abdomen or at its massage) in combination with cold extremities, liquid unformed stool and deep slow pulse are signs of deficiency of YANG of spleen. Effect of cold or cold drink can be the factors provoking similar pains of periumbilical region. In this case there is disturbance in the process of digestion, that is realized with the help of spleen. This is a syndrome of pain owing to emptiness and cold under the influence of cold and damp, which have accumulated inside the organism.

The pains in the lower abdomen with unpleasant sensations at palpation of painful place and pressure on it, accompanied by meteorism, in combination with constipation, propensity for heat and disgust for cold, sweet taste in the mouth and deep, tense pulse correspond to a state of congelation of QI under the influence of exogenous cold. In this case there is a syndrome of pain owing to fullness of cold in combination with blocking of functional source of QI for which hindrances arose. Pains at the lower abdomen in combination with "propensity" for cold and "disgust" for heat, thirst, dry tongue sliding rapid pulse correspond to the exogenous pathogenic factor, connected with heat, which has accumulated inside the organism. Thus the QI mechanism is deprived of "patency"; the syndrome of pain owing to fullness of heat takes place. At pains of indefinite localization in the region of abdomen, which are felt either in the region of large intestine, or in the region of small intestine, sometimes they appear only on one side, have variable (fluctuating) character, and by massaging the meteorism is removed, and it brings relief to the patient – it is the pain state in the lower part of abdomen owing to blocking of QI.

If there is a constant place of localization of pain, which has acute character, like a prick of a needle, weakens in the daytime and becomes stronger at night, and at the lower abdomen the irremovable compact node is palpated in combination with darkened lips, maculae on the tongue and hindered unequal pulse – it is the pain state owing to stagnation of blood.

Intermittent pains in the region of navel, by which with the help of palpation bar-like lumps are discovered, in combination with maculae on the face and small pimples on the internal surfaces of lips, and also the helminthes in stool is the evidence of state of occlusion by parasites, which are the cause of pains.

Low-back pains and pains in the sacral region

This kind of pains is localized in the region of kidneys and lumbar part of the spinal cord. If the pains are accompanied by chill (patient searches warmth), have pressing character and irradiate in the lower part of abdomen, the patient has the sensation, as though he sits in water, furthermore, they depend on weather – it is the evidence of blocking disturbance under the influence of cold and damp in "channel vessels". According to the nomenclature of Chinese medicine it is a syndrome of pain owing to cold and damp, at which the smooth flow of blood and QI is disturbed.

Intractable pain in the region of low-back in combination with weak morbid legs, the patient can not stand for the long time, abundant urination of transparent urine, chill in the whole body and weak pulse correspond to a state of emptiness of YANG of kidneys.

Low-back pains accompanied by state of heightened nervousness and psychic excitement, in combination with red tongue, covered with the small amount of incrustation, and weak, rapid pulse correspond to a state of emptiness of YIN of kidneys.

Low-back pains with the constant place of localization in the spinal cord or intensification of pains at paravertebral compression arise in most cases as a result of heavy exogenous damages, and the stagnant blood is the direct cause of such kind of pains in low-back.

"Hernial" pains

"Hernial" pains are also called in Chinese medicine simply "hernia". These are severe pains in the hypogastric region of abdomen, which in men can irradiate in testicles. Sometimes the content of hernia can penetrate even into the scrotum. If the testicles and scrotum are cold, pains irradiate on the whole hypogastric region of abdomen.

If the testicles are displaced upwards, the Chinese medicine states the blocking of liver vessels under the influence of cold. If the scrotum has reddened, swelled, drooped and is hot, and the testicles have swelled, enlarged and are painful to such extent, that it is impossible to touch them, and also the hot urine of yellow-reddish color is excreted, it is the state of damp and heat, which flow downwards along the liver meridian.

Hernial pains with swollen, painful scrotum, sensation of discomfort in the hypogastric region of abdomen and intermittent pains with change of place of their localization indicate that the qi mechanism works in the wrong direction. Thus QI stoops down, invoking pains. The Chinese medicine calls it also the blocking of QI. If the scrotum is sometimes enlarged, sometimes reduced, and the patient notices, when he lies down, that something moves from the scrotum in the abdomen, and the pains disappear, and when he stands up something moves from abdomen in the scrotum, and the pains arise again, such state according to nomenclature of Chinese medicine is the evidence of damage of hypogastric region of abdomen by cold and damp, and the tendons and vessels being relaxed, that can lead to rise of scrotal hernia.

To prevent misunderstanding it is necessary to note, that inguinal and scrotal hernia undergo nowadays in China in most cases operative treatment. The role of acupuncture is restricted in similar cases to relieving the pain, that accompanies these diseases.

Joint pains

Joint pains in combination with sensation of heaviness in extremities (joints do not redden and do not swell, and the pains depend on weather, at rain and cold they become stronger) are called in Chinese medicine "pains bi". They arise owing to penetration of pathological factor, connected with wind and cold and also damp into joints. If joint pain has no fixed localization, and has roaming character, especially in arms, it is called in Chinese medicine "roaming bi", which is invoked by strong disturbance, connected with wind.

Severe gnawing pains in a joint with fixed localization, which become stronger under the influence of cold and weaken under the influence of heat, indicate the disturbance connected with cold, which the protective forces of organism did not manage to repulse completely and which invokes the "pain bi". Painful, heavy joints with fixed localization of pain sensation in lumbar part of the spinal cord or in lower extremities with swelling, but without change of external coloring – the limbs are immobile and the patient has sticky incrustation on the tongue and weak pulse – indicate according to nomenclature of Chinese medicine availability of strong pathogenic source, connected with damp, which is invoked by sticking bi.

If the joints of upper and lower extremities have swelled and have reddened, at their palpation the sensation of burning arises, and the effect of cold promotes relief of pain, the patient's body, is hot, he has dry mouth, rapid pulse and signs of psychic excitation, it indicates according to Chinese medicine the availability of pathogenic source, connected with wind, damp and heat, which has penetrated into the organism, having caused "bi owing to heat".

Localized effects on the skin

Without visible change on the skin

The localized itch without manifestations of scabies, which spreads by the way of vertical strokes before the lateral malleolus from the lateral part of crus up to the dorsum of foot or on the external side of femur, is a sign of disturbances in the system of bile ducts. If the itch arises on the right, it can also be the indication on disturbance of the function of gall bladder.

At noticeable changes of the skin

For symptomatic diagnostics only non-generalized or non-symmetric appearing effects can be evaluated.

Atheromas – dermal or hypodermic flexible lumps to the size of a pea or an egg. They can appear on the forehead, especially in the hair region of head, often appear in great quantities. The atheromas by its constant pressure can brake the course of energy in passing there channels: gall bladder, urinary bladder, governing vessel. The same concerns lipomas, which are located in subcutaneous fat, but their favourite localization – occiput, neck, back and extremities.

Erythema, which appears with restricted spreading on the surface, can sometimes be a symptom, for example, the erythema of cheek is explained by the stomach upset.

Erythrasma on the internal surface of femur in men is caused by microsporon minufissimum. The prerequisite of this disease is "the sweating of special composition". At measurement the disturbance of the function of liver is revealed, because the channel passes on the internal surface of femur. At erythrasma under the loose-hanging breast the cause of illness is the disturbance of the function of liver, as the last point of liver channel F14 is located in the 5th intercostal space in the side from the mammary line.

Eczema. Narrow surface eczemas, which at spreading follow the course of the channel, represent signs for the diagnosis. For example, eczema on the thumb of the right hand, located on the small space between the 1st and 3rd points of the lymphatic channel. The nidus of inflammation in the right palatine tonsil can be the cause.

Papules. Isolated papules on sympathetic points of urinary bladder channel, for example, V18 and V19, can mean the excessive consumption of pork. One-sided papules on the kidney channel on the internal side of femur at a height of the first third is a sign of deficiency of epinephros.

Nodes. At formation of nodes, which are located in the skin and under the skin, for example, in case of erythema nodosum, preferable localization is the internal surface of crus. The greater part of nodes is located here on the spleen channel.

Birthmarks. It is necessary to correlate small birthmarks, but not large ones, on the surface with channels; especially only in old age appearing pigmented nevi, which can be the indication on etiology. In case of pigmented nevi of face it is always the question of birthmarks, located on the stomach channel. The pigmented nevi on the femur arise either in the region of stomach channel or on the spleen channel between points RP10 and RP11 (only on the right).

Pigmentary birthmarks. Congenital small maculae can be the indication on the constitutional weakness of organ.

Verrugas. Verrugas, located isolated, can often be the interesting diagnostic sign. A verruga on the left wing of nose on the transition to the skin of face indicates the obstruction of large intestine, because the veruga is located in the 20th point of large intestine (the last point of channel).

Ulcers. Practically any arisen ulcer should always be correlated with the course of the channel. The varicose crus ulcer has from the point of view of acupuncture an interesting position in the lower third of internal surface of crus, in the point of contact of three channels YIN – the liver, spleen and kidneys. Crus ulcer on the lateral part of the dorsum of foot in the region of point V65 of urinary bladder is a sign of urogenital disorder.

Hyperkeratosis. Hyperkeratosis in the form of callosities and callosities, arising at mechanical irritation, can be the sign of dysfunction of organ.

Localized lymphomas

At dysfunction of an organ there appears lymphatic tumescence in the certain point of acupuncture, for example, in R6. According to R. Voll it is the sixth point of kidneys – the measuring point of rectum. At similar tumescence the relief before and under the medial malleolus can become smooth.

However the lymphatic tumescence can spread on 2 and 3 sequentially located points of the kidney channel. So, at rise of deficiency of kidneys the swelling of the area below the region of points R4 and R6 is revealed or the induration below the 2nd and 3rd points of the kidney channel appears. At thrombophlebitis deep veins between fibular bone and shin bone swell (according to R. Voll R7 – the measuring point of veins of the lower extremity, often it is very painful at pressing).

At setting in climacteric conditioned arthrosis of knee joint on the internal side of knee the region between points F8 and F9 swells and hurts at pressing. It is arthrosis – reflection of the insufficient function of liver, especially at the beginning of climacterium.

The localized change of nails

Onychomalacia (softening of nails) can be a sign for diagnosis only in the case of separate nail. Also the separate, isolated paronychia can indicate the disturbed function of an organ, even a coming off on one of the fingers cuticle of nail, for example, radial side on the forefinger – the indication on disorder of large intestine, ulnar side of thumb – sign of lungs disturbance.

Nail and nail bed can be a frank etiological indication. Here again the prerequisite is the isolated appearance of a disease of a nail. The diseases of nails at systematic diseases of skin, at dystrophic changes owing to nervous diseases are out of question. One-sided disease of nail of great toe is of interest. Often only shin or fibular side of nail is ill. Then it is the sign of disturbance either of spleen-pancreas or liver.

Stretched on the surface, stroke-form lymphatic tumor palpated almost as myogelosis, is revealed between the 15-17 points of the vessel of governing at depressions. The 17th point of governing is a point of diagnostics of psychics.

The lymphatic induration around the point V60 can in some cases be the indication on availability of double-sided degenerative nervous disease.

Fig. 10 – Tests of nail diagnostics. Change of the form and relief of nails (the brackets above the fingers mean the crookedness of the nail plates)

On fig. 10 are figured:

1 – the normal shape of nail; 2 – the short plane nail – organic heart diseases; 3 – the large size of a crescent – tachycardia; 4 – the absence of a crescent – cardiac neurosis; 5 – the large prominent nail – pulmonary tuberculosis; 6 – the prominent nail with a large crescent – congenital form of tuberculosis; 7 – the plane curved nail – bronchial asthma, bronchitis (congenital forms); 8 – the tubiform high nail – cancer; 9 – the clavate phalanx – congenital forms of mental disorders, cruelty, aggressiveness, hydrophobia; 10 – the concave nail – congenital forms of alcoholism; 11 – the flattened-crushed nail – helminthic invasion; 12 – fragile grooves on the nail – deposits of lime; 13 – slag (salt) layers on the nail – acute diseases of gastrointestinal tract; 14 – the oblong nail – pancreatic diabetes; 15 – the nail of fourth finger in the form of a semicircle – kidneys pathology; 16 – almond-shaped streaks (waves) on the nail – rheumatism, typhus; 17 – the gnawed nail – neurosis, gastritis, sexual dysfunctions in women; 18 – strips and specks on the nail – diseases of spleen and small intestine; 19 – strips on the nail – diseases of bowels; 20 – the triangular nail – diseases of spinal column and marrow; 21 – the perforated nail – spleen pathology; 22 – the plane nail with an eminence on the forefinger – spleen pathology.

PALPATION

In traditional Chinese medicine the great importance was attached to palpation of the body. The palpation is conducted thoroughly and successively, in combination with inspection, auscultation and olfaction. The research by method of palpation, as a rule, starts top-down, i.e. at first the head, face, neck are palpated, then back, abdomen and extremities. The special attention should be paid to the skin and subcutaneous fat, its elasticity, availability of indurations, rise of temperature in the whole body or its parts, xeroderma (desiccation of the organism), the availability of edemas etc. At palpation of arms and legs first of all their temperature is determined. So, cold hands and feet indicate the "hollow" of YANG with abundant cold". Hot hands and feet is a sign of "fullness of YANG in combination with strong heat". The hot palms are the indication on "internal" syndrome, hot dorsum of hand – on "external" syndrome.

The special methods of diagnostics – diagnostics on abdomen and pulse diagnostics also belong to palpation. To some extent the pulse diagnostics can be substituted by some methods of electropuncture diagnostics, including Nakatani test.

Diagnostics on abdomen

The treatise "Huangdi Neijing" contains the first information about possibility of diagnostics on abdomen. The diagnostics on abdomen is especially important at chronic diseases. Due to stability of figures it is the important component of eastern medicine. Besides the palpation of abdomen is the necessary continuation of electropuncture diagnostics, that allows to judge with great validity about the disease of this or that organ.

General principles

In contrast to the experts of western medicine, the eastern doctors attach great importance to the state of front abdominal wall, availability of pain zones etc. and less importance is attached to deep palpation (organ palpation). At inspection and palpation of abdomen the patient should be in horizontal position, the arms are stretched along the trunk, the head is on the pillow, there is a bolster under the knees. The patient should relax, breathe quietly and close his eyes. The hand of the doctor should not be colder, than the skin of abdomen in the patient. Palpation is conducted with the whole palm with straightened fingers beginning from the top of the chest, then one passes to epigastric region, navel,

hypogastric region and both sides of abdomen. The skin temperature of separate parts of abdomen, state of skin and subcutaneous fat are checked, paying attention to tangible pulsing of aorta. Then with flat arm the upper and internal muscle layers are palpated, and the difference of tension and sensitive to pressing places are determined.

Signs of normal state of abdomen

The normal abdominal wall has dull luster, it is elastic, low-sensitive to pinches and pressing, with identical temperature in all parts. Abdominal muscles have equal normal tone and are low-sensitive to pressing. There are no pulsation of aorta.

Pathological changes of abdominal wall and their clinical value.

Heightened tension and tenderness at pressing are signs of excess of energy; atrophic skin with inadequate blood supply, dough-like connective tissue, flabby or thin slightly tense abdominal wall are signs of common deficiency of energy in the organism.

Excess of epigastric region – deficiency of hypogastric region

At palpation of abdomen the epigastric region is tense and swelled in the middle – the sign of excess of the spleen meridian. The opposite state of abdominal wall in hypogastric region is observed – soft and sunken – it is a sign of deficiency of the kidney meridian.

Deficiency of epigastric region – excess of hypogastric region.

The abdominal wall is flabby and sunken in the epigastric region, tense and protruding in the hypogastric region. It is a sign of deficiency of spleen and stomach meridians and excess of kidney and urinary bladder meridians. It is often observed at chronic disease of urogenital organs, chronic constipation and diarrhea, and also at chronic lymbodynia.

Excess of epigastric region – excess of hypogastric region.

The epigastric and hypogastric region are firm and swelled. It is a sign of excess of spleen meridian and excess of the kidney, urinary bladder meridians. It is the evidence of availability of heightened venous stagnation in the abdominal cavity and is considered to be the serious state of the patient.

Deficiency of epigastric region – deficiency of hypogastric region.

The abdominal wall is flabby and sunken. It is the sign of deficiency of the spleen, stomach or kidney channels and is considered to be a very serious state of the patient.

Fields and indurations of organs

The large section of the text "Neijin" (Difficult questions) is devoted to consideration of "diseases of stagnation".

The common feature of "diseases of stagnation" (zheng jia ji jiu) is the availability of induration or swelling in the abdominal cavity. The combination of terms "zhen jia" belongs to two types of indurations of indicated localization. These are syndromes, at which the "lower heater" is affected. The indurations at these syndromes are located in the region of stomach, under it or in hypochondrium. It is possible to define "zheng ji" at palpation, as dense immobile lumps with clear outlines. They are irremovable, accompanied by intensive constant stabbing pains. "Jia jiu", in its turn, are mobile indurations, which have non-constant objective and subjective characteristics.

In the fifty fifth difficulty Neijing the indurations according to the type of "accumulation" – ji are connected with disease of YIN nature. They have the following characteristics: deep, hidden, and are viewed as lumps, connected with five dense organs zheng. The indurations according to the type of "compression" – jiu belong to diseases of YANG nature. They have the following characteristics: surface and mobile, have connections with six hollow organs fu. Zheng ji are real and fixed in space and in time. They belong to stagnation of YIN character, when the blood, cold, food or mucus in combination with dampness (shi tian) or cold (han tian) stagnate. All these diseases declare themselves on the level of organs or vessels. Jia jiu are mobile, mutable. They belong to stagnation of YANG character: qi, heat and mucus in combination with fire. YAN Jizhou, commenting the fifty fifth difficulty Neijing, precises that "their existence or non-existence depend on unpredictable impact of blood or QI".

In "Zhang Shi I I Tun" is written: "Accumulations ji" are the result of five dense organs zhang and hardly having appeared, they already have the particular localization, the limits of which they do not quit, and also pain sensations. They have clear borders above, below, at the left and on the right. "Compressions jiu" depend on six hollow organs fu, hardly having appeared, they have neither roots, nor basic points neither below, nor above. The pain thus has also no particular localization". The diseases of accumulation are usually viewed as stagnations with pains, considerable distension, and also with clear localization. Their originating is connected with many causes:

- from distortion of seven emotions up to stagnation of QI or blood;
- from internal pathology, conditioned by food or drink up to blocking owing to stagnation of mucus;
- from penetration of harmful se of heat or cold in the organism up to insufficient own feeding QI of organism, that allows the illnesses to take root and to declare itself.

In traditional Chinese medicine it is considered, that the indurations of YIN type are connected with middle heater and are localized primarily in epigastric and mesogastric regions. At palpation the dense, fixed, painful lumps are revealed. It is considered, that the accumulations of YIN type can be conditioned by blood, cold, food, and also mucus in combination with cold or damp. The localization of formation and manifestation of accumulation ji can be different: except the above-stated regions the similar accumulations can be met also along vessels. However, if the accumulations ji are connected with dense organs zang, their location depends on the affected organ. In Neijing it is said about five accumulations (u jin), that at "accumulation of liver" its QI moves and declares itself in disease in the region to the left of navel... ji of heart declares itself above the navel... ji of spleen – at the level of navel... ji of lung – to the right from the navel... ji of kidneys – under the navel". At accumulation, connected with liver, indurations localize in the left hypochondrium and their form resembles the inverted wine-glass.

In "Huangdi Neijing" it is emphasized, that at diseases of internal organs the hardenings (indurations, "nodes") of front abdominal wall, painful at pressing, form. The clear-cut regularity of appearance of painfulness and indurations depending on the suffered organ is tracked, that allows to speak about "fields" of organs (fig. 11). In zones, given on the figure, the changes at pathology of corresponding organs are most often registered. The coincidence of fields with the pentagram of primary elements is apparent: in the middle (center) of abdomen – ground, above – fire, below – water, on the sides – metal and wood. The latter two primary elements are locate a little bit unusually: metal (lungs) – at the left, wood (liver) – on the right. Such location can be explained in such a way – if we turn the front abdominal wall, i.e. if we turn its internal side to forth, wood and metal "stand on their places".

Diseases of accumulation

Accumulation of liver – "fei QI" (thick QI) is conditioned by stagnation of QI of liver and coagulation of the stopped blood. It may be, that hyperemia of liver is, as a rule, a result of accumulated bile at excess of cholepoiesis or at disturbance of its outflow. Primarily it hinders the free flow of QI up to its stopage, and then it can lead to stagnation of blood. As a result the indurations in the abdominal cavity can be formed in the course of time. Main symptoms: pains in hypochondrium, irradiating in the lower abdomen, swollen and cold legs, hernia and cramps in muscles. And if the illness is prolonged, such signs as cough, decline of vital forces, recurrent fever (nue ji) are added.

The accumulation of liver occurs in late summer, since in this season the spleen does not accept the illness, which goes to it from lungs through the liver, as a result the pathogenic factor stagnates in liver, invoking the node.

Accumulation of heart is named "fu lan" (hidden dam). It should be mentioned, that in other contexts the term "fu lan" is used for designation of different syndromes.

In this case accumulations in the heart are characterized by unpleasant sensations in the region of heart, heat in palms, nausea. The induration arm thick is spread from the upper up to the lower part of the chest. At prolonged course of disease the patient begins to suffer from melancholia. This syndrome is multiplex, connected with emotional disturbances and subsequent stagnation of QI. Its clinical manifestations are depression, distending pains in the chest and in hypochondrium, sensation of lump in the throat, absence of appetite and apathy. Patient's complaints: fullness and distending sensation in the chest, palpitation, sensation of heat in abdomen, dry throat. The patient has red face, heat in palms and hemoptysis.

The pathological process goes mainly from kidneys through heart to lungs. But in autumn the lungs are very strong and do not take the illness, so that it, being stored in the heart, invokes the cardiac node.

Accumulation of spleen (pi ji) – named also "pi QI" (enlargement and induration of qi) – has number of meanings. For example, it means sensations of induration in abdomen in combination with unpleasant sensations in the chest. Such a state is usually a consequence of erroneous treatment of the disease of cold, when instead of diaphoretic drugs or dispersion of cold cleansing procedures are applied. Harmful se does not disappear, being driven out, but on the contrary, it strengthens, invokes the stagnation of QI and does not yield to dispersion. Usually the syndrome of accumulation of spleen is connected with stagnation of QI and with emptiness of spleen. It declares itself in abdominal distensions, which by their form resemble the inverted cup. At prolonged course of disease flesh and muscles do not receive their feeding, they atrophy, four extremities weaken. It reminds a pattern of disease at icterus. In this case symptomatology concerns digestion: the sensation of repletion in abdomen, vomiting, diarrhea, meteorism, in combination with weakness and swelling. These disorders are reduced at starvation and strengthen after consumption of flour products.

In the winter the kidneys reign above other organs. Therefore they do not take the illness, that goes to them from liver through spleen, so that it settles in the latter. For this reason the splenic nodes arise in the winter.

Accumulation of lungs (fei ji) is also named "si pen" "cogged-wheel breathing". Its signs are induration in right hypochondrium in the form of inverted glass, heavy breathing, reverse flow of QI, that is accompanied by sensation of constraint in the chest, hiccup, expectoration of blood and pus. If the illness has been prolonged, the formation of pulmonary abscesses is possible. In a whole signs of accumulation of lungs declare themselves in pains, which on intensity are similar to a flea-bite or prick of the needle, amnesia, impairment of vision, dyspnea and pains in hypochondrium, reverse flow of QI, stagnation of QI or blood owing to occlusion by damp. Taking into account, that the stagnation tends to

transformation in heat, some sources say, that the illness is conditioned by accumulation of mucus-heat and as a principle of treatment it is offered to promote the enlargement of feeding energy of lungs, to remove mucus and to disperse heat.

The accumulation of lungs arises in spring. In this season the dominating organ is liver, which does not take the illness going to it from the heart through lungs, and displacing it back to latter, so that lungs are taken ill in spring.

Accumulation of kidneys (shen ji) is called also "weng tun QI" (disordered embankment). The symptoms of this disease are connected with disturbance of circulation of QI, which ascends from hypochondrium to the chest and throat, invoking strong chest and abdominal pains accompanied sometimes by alternate sensation of cold and heat. Accumulation of kidneys occurs in the state of hunger and disappears after satiation. It can also be accompanied by stammering, swelling in the throat, rheumatic pain in bones, chill and flaccid ulcers. At prolonged course of this disorder the appearance of signs of involving the kidneys in pathological process is possible. So, there appear spastic cough, dyspnea, signs of emptiness of QI (indifference, low voice, reluctance to talk, asthenia, weak pulse), spasms and "atrophic weakness" in bones. Besides there appear the difficulty to keep upright position of body, weakness in lumbar region and in the lower extremities. The severe exhaustion of YIN of kidneys can be the cause of such a syndrome or the heat of QI from the liver attacks a kidney at the opposite direction of its movement. For treatment it is necessary to disperse the cold and harmful se with the help of heat, which have conditioned the damage of YIN vessel of kidneys. Also it is necessary to clean the liver, to lower the QI, which lifts because of inverse flow.

In the summer the heart prevails over five organs. Therefore it is strong enough to repulse the illness, approaching to it from the spleen through kidneys. The accumulation of illness in the latter invokes their disease and formation of renal nodes.

Pulsation of aorta

The reproduction of pulsation of aorta on the front abdominal wall is always a sign of deficiency in combination with nervous excitation, therefore it is the state of irritable weakness. The closer to the surface the pulsation is felt, the stronger is the state of excitation (fig. 12).

VC15. The deep pulsation in the epigastric angle is revealed at deficiency of heart. If it is felt by light touch, the acute excitation takes place. The pulsation passing from the point VC15 to the navel indicates the deficiency of heart and kidneys.

VC12. The deep pulsation in this region indicates the deficiency of spleen, if the pulsation is surface, it is a sign of deficiency of stomach. At insomnia there is often pulsation passing from the point VC12 to VC15.

VC9. The pulsation in the given region is a sign of deficiency of kidneys and liver in combination with mental distress.

VC8 (Navel). The tangible pulsation in the depth of the navel is a sign of general excess symptom and on the surface of navel – of deficiency.

E25. The pulsation in the left part of abdominal cavity in the region of point E25 indicates the venous stagnation of blood in the abdominal cavity, but it is not always a pathological sign. But if the pulsation is felt from the right side as well, it is the evidence of extensive venous stagnation often accompanied by hyperacid gastritis and heightened nervous excitability, and of the unfavorable prognosis.

VC3, VC4. The pulsation near to these points is observed at tinnitus and bradyacuasia.

Additional examinations of abdominal cavity and front abdominal wall

The splashing sound in the stomach during percussion means the constitution of "water poison", indicates the atony and dilatation of stomach, its deficiency, neurosis and hysteria (fig. 13 – a).

The tension of abdominal wall in epigastric region and under the costal margin accompanied by sensation of fullness and stagnation, and sometimes by painfulness at pressing corresponds to the type "small YANG" (fig. 13 – b).

The induration of abdominal wall in the middle part of epigastric region is the evidence of mental depression, neurosis (excess or deficiency of stomach and spleen channels depending on the concomitant symptoms) (fig. 13 – c).

Similar tension of abdominal wall in the epigastric angle and painfulness at pressing or without this sensation indicates the cardiac neurosis (fig. 13 – d).

The plane, thin and tense abdominal wall (as "bamboo curtain") – deficiency of the three heaters channel (fig. 13 – e).

Edematic thickening of skin and subcutaneous tissue in the region of the lower part of costal margin especially on the right, with painfulness at pinch in the point F14: disease of liver, stagnation in the system of portal vein and in the lung – excess or deficiency of the liver channel (fig. 13 – f).

On the right the abdominal wall is flaccid, at the left the rectus muscle of abdomen is tense, in the middle and upper part of abdomen there is pain at pressing. As a rule, the sensation of pressure, tension and aortal pulsation are observed. The diagnosis: deficiency of liver channel, "rising fire". Symptoms: giddiness, sense of heaviness in the head, insomnia, tachycardia, tremor. Such picture is met sometimes at hyperthyroidism (fig. 14 – a).

Tension of abdominal wall near the costal margin from both sides and at the left near the navel spreading on the costal margin. In the left part of abdomen the noticeable pulsation is felt: type "small YANG", deficiency of liver channel (fig. 14 – b).

Rectus muscle of abdomen is tense from both sides, the lateral parts of abdominal wall are soft, there are prolate hollows of abdominal wall along the center line above and below the navel: deficiency of spleen or kidneys. Symptoms: fatigue, weakness in extremities, sweating in the night, palpitation, nervousness, fearfulness, abdominal pain, burning sensation in feet (fig. 14 – c).

Rod shaped induration of the middle part of epigastric region: deficiency of spleen and stomach channels (fig. 14 – d).

Rod shaped induration of the middle part of epigastric region up to xiphoid process: sign of death (fig. 14 – e).

Rod shaped induration along the center line in epigastric and hypogastric regions: deficiency of spleen and kidney channels (fig. 14 – f).

Rod shaped induration in the middle part of hypogastric region: deficiency of kidney channel (fig. 15 – a).

The region around the navel is "absolutely weak", the navel moves, pulsation: deficiency of kidney channel (fig. 15 – b).

The abdominal wall is atonic in hypogastric and tense in epigastric region, pulsation in hypogastric region: extreme deficiency of kidney channel (fig. 15 – c).

The abdominal wall is thin and tense, noticeable weight loss: extreme deficiency of spleen and stomach channels (fig. 15 – d).

Induration above symphysis: frequent phenomenon at enuresis, neuroses and dream disturbances in children (fig. 15 – e).

The edemic thickening of skin and hypodermic fat or sensitive to pressing tension of abdominal wall lower the costal margin. Sensitiveness to pressing in the inguinal region, especially at the left: excess of the liver channel (fig. 15 – f).

Points A-SHI, SHOU-DAO in Nakatani test*

*The given section is written on the basis of materials granted by A.N. Medvedev, master of esoteric Taoss school Shou-Dao, the president of international association of martial arts Shao-Dao.

A-SHI points are called also "pain", "local", "entry points of celestial energy". They have no fixed localization, and appear at any disturbances in channels and internal organs. In antiquity till creation of the theory of channels and collaterals all points were points A-SHI, but at long-term scrupulous analysis of clinical manifestations of diseases and therapeutic effect some of them (which appear the most naturally and have clear effect) were separated and have formed the categories of channel and extraordinary points. In practice the points A-SHI are more often used at pain syndromes, and the treatment of pain should be started from the search and effect on the most painful points.

However the pain points gain in the greatest value at diagnostics. By exact search of these points and their palpation the doctor receives the possibility to trace the movement of disease practically from the very beginning, moreover to see the intermediate and final goals of pathogenic factor and so to select an adequate method of therapy.

There existed a doctrine about paths, cities, fortresses and warriors in ancient Taosses, which was intended first of all for recovery of warrior after fight, for his treatment after campaign and, unclear for many Europeans, for description of the theory of killing the enemy by light touch of finger (poisonous hand).

In antiquity the level of literacy and education of the bulk of population was very low, the teachers had to resort to concrete and figurative language to pass on their knowledge. As it is the question of doctrine of Taosse warriors, the nomenclature is frequently rich in "military slang" and the doctor had to decide the problems of treatment of illness resting upon the basis of waging the actual war – tactics and strategy.

Let's become better acquainted with Taosse's nomenclature, as it is simply impossible to find deeper comprehension of significance of points A-SHI in other sources.

"City" – it is the nervous center, or an acupuncture point or zone, though the concept of a city in Shou-Dao warriors is wider, than in traditional acupuncture. The cities can arise and disappear, move, have healthy and ill suburbs, expand and decline.

Taosse name the cities the centers of life or energy, because they are center of many exhibitions of life. The components of life fill in certain combination, amount and structure this or that city. The components of life can be compared to nationalities of people, with their professions, position in society or to layers of society like classes or estates.

It is difficult to demarcate the city and suburb. They are distinguished only by size and level of energy, which they contain. The suburb is one of the points, that form a large active zone or its part and a city can be both a point of zone and the whole zone. Cities and suburbs always change the outlines. Even the smallest suburb in particular situation can break up into some smaller ones. At high level of energy the city increases, and the suburbs enter it, becoming the districts of the city. The city can break up to a chain of small-sized cities or suburbs, between which the level of energy is lowered.

If the city is occupied by the enemy, at "approach of armies", that is at pressure on a point, there arises pain in it, that is in itself a sign of illness. Tactics and strategy of treatment develop under the military scenarios.

If pain by pressing or any other sensation, for example scratch, pricking, distention, and so on, irradiates in any point or zone of body, it means, that spies (sensations) have informed on availability or moving of enemy armies in the other city, and they should be smashed by local armies, in order they do not save their strength. For this purpose it is necessary to search and to effect the most painful point in the zone, from which the signal comes, or in the city, if the sensation is clearly localized.

Besieging the city, i.e. conducting the treatment, it is very important to hinder the spreading and moving of illness, cutting off the ways to neighboring cities by effect on them. If they also were occupied by enemies, the barrier is shifted further. And the ill cities are enclosed not only above and below along the native channel (path), but also from the side of neighboring cities, located on other paths.

If during the storm of a city, that is at direct pressure on a point, the pain is too severe, it means, that the population of the city suffers losses, and it is necessary to reduce the intensity of storm (effect), prolonging thus the siege (treatment).

If at storm of the city the enemy attempts to capture the palaces of lords, that is the sensation penetrates deep, into internal organs, it is necessary to send a pursuit – the arisen sensation renews over and over again, moreover, the points are searched, sensations from which direct towards the organ. Such points are searched not only in the area of the city, which was the starting point of campaign on palaces, but such city can be essentially removed from them and be located, for example, on the extremity, or also immediately above the organ, from different sides of trunk. This method of effect is associated with sending the pursuit.

Different lumps on the skin and in tissues, furuncles, birthmarks and verrugas are not exposed to attack of armies, as it is considered, that they are the fortresses of enemy allies, which temporarily keep neutrality, and it is dangerous to attack them. However it is possible to define the location of enemy forces on them.

The city can be built by enemies of the organism, by illnesses or harmful energies. Paths are not only classical channels, but also any trajectory, along which the streams of interacting, confronting or interchangeable energies move. The state of a city can vary because of any external and internal cause, weather or mood. The body of the person represents the Earth, or globe, divided into states, which either fight against one another, or make peace depending on different causes and external influences.

"States" are internal organs and some internal regions of the body. Warriors are energetic constituents, sensations and constituents of sensations. Mechanical effect is also warriors, and the will of the commanders as well, because it contains the energy of the applied force. Attacking the suburb, one applies strong mechanical effect, or helps it, when the effect is weak and salutary. But potent systematic effect or lesion of suburb with the help of painful expiration QI – the technique of poisonous hand makes its way inside along the unprotected paths and destroys the states.

The states, as well as cities, can change their outlines, expand, become many-storied, penetrating deep down or gathering to the center. Along the paths, depending on effect on cities from within or from the outside, the masses of life warriors or their enemies can move. The warriors can build new cities, destroy the old ones or win back the territories captured by the enemy. Some cities play such an important role for the state, that the strong, potent effect on them is fraught with instantaneous or remote consequences. That is a secret of poisonous hand. Having sent the warriors of destruction by light touch of hand in the key city of the state, it is possible to destroy both the state and the Earth, that is the person, or to put the destructive program in him, when the warriors need some time to destroy the Earth.

The simplest method of application of the theory of cities for treatment of the concrete illness or general health-improvement of the organism is to define by palpation all painful zones of body, to

chose among them the most painful one and to effect it first of all by pressure, though the cauterization or needles are not excluded. Then the fancy joins the effect. The forms or states created by imagination influence the city. Normal sensitivity of a point without pronounced pain sensations is the sign that the city is not occupied by the enemy and lives the normal life. The city, occupied by the enemy is a sign of an illness, that declares itself in hypersensitization of point at pressing.

Sometimes the enemies extirpate almost all citizens and go away, leaving it empty and lifeless, and then the city gives no signs of life at all, that is the normal sensitivity of point is disturbed, and at pressing on it there are no pain sensations at all. Then the point is effected until the new inhabitants settle in the city and the normal sensitivity is restored.

When during mechanical effect there is a sensation of band, stretched string, current inside the body or irradiation of pain, it is called reviving or indication of the path, on which, not hiding, either illness, or warriors of cities move. If at effect the pain irradiates in the other zone, for example, at effect on the arm it passes in the leg or head, it means, that the enemy, having escaped in a new city, organizes the resistance, and it is necessary to take measures, having attacked that city, giving the opponent no time to get stronger and again organize a campaign on healthy cities.

The enemy can be enclosed, while effecting the points above and below the city, occupied by the enemy, and after that one can effect the city. It is possible to lay ambushes for the enemy – at first it is necessary to effect the healthy point, then one can effect sequentially close located points, and so gradually pursue the enemy to the well treated healthy point for further destruction.

Nakatani Test and "cities" of Taosse

During the last two years we have developed and approved the system of diagnostics and therapy, which includes the preliminary Nakatani test with the subsequent palpation according to the principle of "cities" and "states". Its essence consists in the following.

In the beginning, following all the rules of preliminary preparation (see "Rules of carrying out the diagnostics") we carry out the Nakatani test. Further, we choose three channels (organs), which are leading (diagnostic points with the greatest deviation from the normative corridor). We define the degree of lesion – organ, channel, special channel etc. (palpation, inquiry etc.). For example, in case of lesion of duodenum, we palpate with thumb-cushion the projection of bulbus on the front abdominal wall and define the most painful point. In case of irradiation of pain (and it happens almost always) we palpate the region, in which the pain irradiates. In such a way, by method of sequential palpation, we reveal some pain zones, the painfulness in these zones will be different and it is in direct dependence to the degree of lesion. It is very important to distinguish deep and surface pain. Zones, in which the deep pain is revealed, are irradiated with IR laser, zones, in which at palpation the surface pain is revealed are irradiated with the laser of red spectrum. At palpation of duodenum the pain, most often, irradiates under xiphoid process, in the region 2,5-3 cun lower the center of the left hypochondrium, in the region above the right kidneys (back). At lesion of internal organs, as a rule, 4-6 zones are determined. On the average each zone is irradiated with the laser 2-3 min (up to 20 min per procedure).

Let's view one more example. On external symptomatology we deal with classical lumbosacral radiculitis. Pain along the course of the urinary bladder channel (back surface of femur and gastrocnemius muscle), periodically there arise convulsions of gastrocnemius muscle, constant numbness in the leg. The interesting thing is, that the Nakatani test indicates the lesion of the gall bladder channel (VB = +12), the remaining values are not taken into account – the deviations are too insignificant (maximum – urinary bladder – +3). At palpation acute pain is revealed in the point VB36. The irradiation of pain from this point is spread along the course of the gall bladder channel from the knee up to the point VB30, the latter being unbearably painful. On this line 4 more pain points are revealed. All pain points along the course of gall bladder are irradiated with the IR-laser with frequency

8500 Hz (acute pain), power 40 mW(45 s for a point), the course of the urinary bladder channel is sounded by low frequency ultrasound (unit "MIT-11" with modulation frequency 37 Hz, voltage 4 mcm and general time of effect 3 min). The point VB30 is irradiated with wavelength 7,1 mm and frequency 2500 Hz (chronic pain). Already after the first procedure the patient state was considerably improved, in 9 procedures the pain has completely passed. At repeated diagnostics the Nakatani test has not revealed the disturbances.

Very important moment. At effect by any factor on a point (needle, EHF, laser) it is necessary to control the state of health of the patient, namely to watch the effect of "ricochet", whether there arises the irradiation from the treated point or not. If yes, it is necessary to find a point, in which the pain rebound goes, this point also requires treatment!

Equipment for carrying out the EPD

Unit "Z-10"

It is intended for carrying out the electropuncture diagnostics (Voll method, including medicament testing, Nakatani method, Nechushkin method etc.), electrotherapy and electropuncture at carrying out the physiotherapy (physiopuncture) with application of low-tension current in impulse mode according to functional resonance frequencies of organs (Voll frequencies). The unit also provides the search of biologically active points and carrying out the electrotreatment, including Voll swings, electroanalgesia, electrodream, electrophoresis and electromiostimulation.

Software-hardware diagnostic complex "MIT-1 EPD"

It is the diagnostic part of the unit for reflexotherapy combined "MIT-1" and can be applied both independently, and together with the medical part of the unit "MIT-1". The complex includes:

- the sensor "MIT-1 EPD" for measurement of conductivity in acupuncture points and input of the measured values into the personal computer with connecting cable, measuring electrodes and net cord (power cord);
- the software "NakataniTest for DOS/Windows".

The diagnostic complex "MIT-1 EPD" is allowed for application in medical establishments of Ministry of Public Health of Ukraine (certificate № 846/2000 from 12.01.2000).

The diagnostic software-hardware complex "MIT-1 EPD" is recommended for application in medical, sanatorium and rehabilitative establishments.

Sensor "MIT-1 EPD"

It provides carrying out the measurements of conductivity of integuments of the person with the help of special electrodes and transmission of the measured values into the personal computer through the standard serial interface RS-232.

Characteristics of the unit:

Maximum voltage value on electrodes – 12 V.

Maximum current value on electrodes – 20 μ A.

Signal frequency on the entry of the serial port of the computer in the mode of broken electrodes not less than 30 Hz.

Signal frequency on the entry of the serial port of the computer in the mode of closed electrodes – not less than 950 Hz.

Time of setting of operating mode does not exceed 10 s.

The unit works from the alternating current net with frequency $50\pm 0,5$ Hz and voltage 220 ± 22 V.

Power consumption – no more than 30 W.

The unit provides continuous operation within 6 hours in repetitive - short-time mode: 30 minutes on carrying out the diagnostics and 5 minutes in out-of-operation state.

Weight of electronic block does not exceed 2 kg, weight of the unit in the delivery set does not exceed 3,8 kg.

Overall dimensions of the unit – $260\times 190\times 60$ mm.

Service life of the unit – not less than 5 years.

Mean time of restoration of operable state – no more than 2 h.

The software "NakataniTest for DOS"

It is used in the structure of the software-hardware diagnostic complex "MIT-1 EPD".

It provides interaction with the hardware part of the complex, reception and processing of the measured values of conductivity of the person's integuments, and also analysis of testing results on special algorithms.

The minimum requirements for installation of the software: a personal computer with the processor x386, 1 MB of RAM, 3 MB of free hard drive space.

The release of the first version: 1991.

The current version – 4.1.

Basic functions:

- maintenance of the database on patients, testing results, case histories;
- support of measurements of electrodermal resistance (EDR) in Nakatani representative points in the semi-automatic mode (reception of data and creation of the table of measurements);
- work in the mode of manual input and reading of EDR values from the file;
- construction of Ryodoraku card and Ryodoraku pentagram (U-SING scheme) on the basis of table of EDR values;
- creation of experts report on results of test according to the classical rules of Japanese diagnostics;
- creation of recommendations on medical effect and correction of state of functional systems of patient's organism with application of different physical factors: acupuncture, laser-therapy, EHF-therapy;
- maintenance of reference book of diseases and methods of treatment (contains basic methods of application of modern medical equipment for physiotherapy and physiopuncture).

Main advantages:

- user-friendly and simple in mastering program interface;
- availability of additional utilities for transmission of the database on the patients and testing, results, loading of diseases and methods of treatment from text files;
- possibility of rearrangement of algorithms of calculation of Ryodoraku values;
- possibility of creation of individual algorithms on expert evaluation of testing results;
- possibility of creation of your own recommendations on medical effect;

- availability of contextual electronic help on work with the program, and also electronic book on acupuncture by professor Samosjuk I.Z.;
- the preset reference book of diseases.

The usefulness, efficiency and operational reliability of functioning of the software product NakataniTest for DOS is proved by time. During decade in spite of fast development of information technologies and customers orientation on potent computer facilities sales volume of the given software product is not reduced.

The software "NakataniTest for Windows"

It is used in the structure of the software-hardware diagnostic complex "MIT-1 EPD".

It provides interaction with the hardware part of the complex, reception and processing of the measured values of conductivity of the person's integuments, and also analysis of testing results on special algorithms.

The minimum requirements for installation of the software: a personal computer with the processor x486 and clock speed 50 MHz, 12 MB of RAM, 12 MB of free hard drive space; installed operating system Windows 95/98/2000 or Windows NT 3. X.

The release of the first version: the second quarter of 1999.

The current version – 2.0.

Basic functions:

- maintenance of the database on patients, testing results, case histories;
- support of measurements of electrodermal resistance (EDR) in Nakatani representative points in the semi-automatic mode (reception of data and creation of the table of measurements);
- work in the mode of manual input and reading of EDR values from the file;
- construction of Ryodoraku card and Ryodoraku pentagram (U-SING scheme) on the basis of table of EDR values;
- creation of experts report on results of test according to the classical rules of Japanese diagnostics;
- creation of recommendations on medical effect and correction of state of functional systems of patient's organism with application of different physical factors: acupuncture, laser-therapy, EHF-therapy.

Main advantages:

- user-friendly and simple in mastering program interface constructed on technology of Wizards – detailed comments and minimum panel of control elements allow the completely unskilled user to confidently work with the program;
- flexible and extensible architecture with possibility of adding the new components without deleting the old programs – you save your money, purchasing only new functional units at a lower price, than the software in a whole;
- functional compatibility with "NakataniTest for DOS";
- the potent editor of case history with possibility of attachment of testing results to any record in the case history;
- transmission of any data: patient's card, case history, testing results, expert evaluation, recommendations on treatment in the word processor Microsoft Word;
- the improved picture representation of topography of Ryodoraku points;

- diversity of adjustments of depicting the Ryodoraku card and pentagram;
- possibility of choice of algorithms of expert evaluation of testing results (you can also additionally purchase the facility of the developer NakataniTest Developer Kit 1.0 for creation of your own expert reports);
- availability of contextual electronic help on work with the program.

"NakataniTest for Windows" is the most advanced product from the series of programs for electropuncture diagnostics. Power and convenience of work in operating system Windows has found the successful realization in the interface solutions of the given software product. As contrasted to "NakataniTest for DOS" you receive at your disposal unsurpassed quality of picture representation and printing of testing results, diversified possibilities of drawing up the case history etc.