I. Introduction

Modern medicine has made tremendous progress in the twentieth century, but there are still many refractory diseases. Especially diagnosis shows remarkable progress but treatment is delayed. Ryodoraku therapy also shows good results for such intractable diseases.

In recent years, acupuncture was introduced to the world as a part of needle anesthesia. The fact that anesthesia can be done with one needle shocked a medical scientist who did not know acupuncture. However, it seems that it also gave hope to explore new therapies.

It is a well-known fact that skin and internal organs are communicated by various reflections. Reflexes from internal organs appear as conjunctive pain, also sympathetic reflex. Measurement of the resistance to skin current flowing in the region where reflection appears can be used to detect abnormalities in internal organs and various organs. When appropriate stimulation is applied to that part, it can respond to visceral organs which seems to be abnormal.

Acupuncture as Oriental medicine is based on this principle.

Acupuncture has been a medical system based on clinical experience and philosophical thought and has been mainstreaming Chinese medicine for 3,000 years.

In Japan, these Oriental medicine came on 1400 years. Until one hundred years ago, it continued as the mainstream of Japanese medicine, but was banned by law. But now it is reapproved.

The late Dr. Nakatani acknowledged the clinical excellence of acupuncture, and began basic research using skin current resistance for acupuncture point and reaction system due to various diseases since 1945. In particular, he scientifically studied acupuncture points and meridians of Chinese ancient acupuncture and confirmed the legitimate facts of Chinese medicine. After that, he pioneered new physiotherapy from the theory of skin current resistance. This is the outline and history of Ryodoraku treatment.

Therefore, Ryodoraku treatment method is thought to be a new physical therapy which explained acupuncture scientifically and made it easier for Western medical doctors to understand.

According to research, various reactions
due to stimulation occur via autonomic nerves. As a result, it acts on the functions of organs, blood circulation, metabolism, resistance of tissue, natural healing ability, etc. to exert a treatment effect beyond expectation.

In conclusion, Ryodoraku therapy is autonomic neuromodulation therapy. If anyone can understand and adjust the function of autonomic nerves, its effect can be understood at the same time.

In particular, it is useful as a supplementary treatment for diseases cured by modern medicine, and as a new treatment for intractable diseases.

Relatively useful diseases are described below.

1) Headache, Migraine
2) Neuralgia
3) Dyschromatopsia, Pseudomyopia, Cataract
4) Epilepsy
5) Neurosis
6) Insomnia
7) Meniere's disease, Vertigo
8) Neuropathic Deafness
9) Toothache
10) Speech Difficulty
11) Frozen Shoulder
12) Thyroid Gland Hypertrophy
13) Whiplash
14) Bronchial Asthma
15) Hepatitis
16) Chronic Gastritis
17) Arthritis, Rheumatic Disease
18) Habituation Constipation
19) Hypertension
20) Impotence
21) Dysmenorrhea
22) Prolongation, Prolapse
23) Bed-Wetting
24) Child Neurosis
25) Urticaria
26) Eczema
27) Atopic Dermatitis

Y.Nakatani and K. Yamashita (1977)

II. What Ryodoraku Autonomous Nerve Adjustment Therapy is.

"Ryodoraku Autonomic Nerve Adjustment Therapy" is stimulation therapy that is performed using the basic theory on Ryodoraku. This is considered to be a new physical therapy to be the foundation in the research field of the autonomic nervous system adjustment method.

Electrical acupuncture (E.A.P) is frequently used as a stimulation method. However, not only the electric acupuncture but also any suitable stimulation such as astremezin, ion granules, thermal stimulation which stimulates the skin may be used.

III. The Significance of Adjustment of the Autonomous Nerves

When stimulating the human body (body surface), reaction (reflection) always occurs somewhere in the body. In other words, excitation of the stimulated cells reaches the central nerve through afferent fibers (sensory nerves), reaches the peripheral effect or from the central nerve, reflection (simple or complicated reflex, etc.).

Even in autonomic nervous (sympathetic and parasympathetic) systems, reflections occur with similar mechanisms.

In clinical significance, reflexes of motor nerves and sensory nerves are used for physical examination, reflection of autonomic nerve is used not only for examination but also for treatment.

Considering the function of the autonomic nerves listed, you can see the expectation of its usefulness.

1. Control of all internal organs (Secretion, absorption, excretion action etc. of digestive juice etc.)
2. Control of the circulatory system
   When the sympathetic nerve is excited the blood vessel contracts, when the parasympathetic nerve is excited the blood vessel expands, but the coronary artery is not.
3. Control of the metabolisms.
   It is also related to resistance of the tissues.
4. Influence on blood components (leukocytes, erythrocytes, platelets etc.)
   When the sympathetic nerve is excited, the White blood cells increase, when the parasympathetic nerve is excited the red blood cells increase, but, In recent years, according to T.Abo and T. Kawamura (2002), When the sympathetic nerve is excited, the granulocytes increase, and when the parasympathetic nerves is excited the lymphocytes increase.
5. Affects muscle tonus.
6. Direct and indirect control of the endocrine glands.

Hormones that control peripheral activity are secreted from the autonomic nerve center (hypothalamus, pituitary gland, etc.). It is also distributed directly to the adrenal gland and the thyroid gland in the periphery, and mutually controls these endocrine secretions. (It is reported that swelling decreases with several treatments when you apply electric needle stimulation to the thyroid part against Basedow's disease.)

7. Control various reflection activities to maintain homeostasis.
8. Control the defense action against bacteria and internal and external tissue damage.

In addition, the autonomic nerve controls most of the work necessary for living things to live. So, autonomic nerve is called "life nerve".

Dysfunction of autonomic nerves is often the main factor of disease. Regulating autonomic nerves makes it easier for disease to heal. Although the importance of autonomic nervous function to disease is understood, there are no effective treatments that can be positively regulated. This can be considered a blind spot of modern medicine.

IV. Internal Organs -- Body Surface Reflexes

Reflexes appear on the body surface by abnormal internal organs and various functions. It is outlined by the following 4 types.

1. Internal organ -- Body surface sensory nerve reflex

   Head's zone (referred pain and hyperesthesia)

2. Internal organ -- Body surface motor nerve reflex

   When the condition of the abdomen (e.g., stomach) is bad, the rectus abdominis muscles and the back muscles are strengthened. This is motor nerve reflex, and sympathetic nerve is also involved.

3. Internal organ -- Body surface sympathetic nerve reflex

   Disorders of organs stimulate the sympathetic nerve. The effect of the sympathetic nerve creates a place where electricity passes easily to the skin. Therefore, we consider that organ and sympathetic nerve, and skin current resistance are closely related.

4. Internal organ -- Body surface parasympathetic nerve reflex

   It affects the vasodilatation of the body surface and changes the skin temperature.

   To adjust the autonomic nerve, it is necessary to first know the state of the autonomic nerve. However, it is impossible to know the state of autonomic nervous system of the whole body in detail. Therefore, a method to know only the excitability of sympathetic nerves was studied.

   Besides, Internal organs -- Internal organs reflex, Body surface -- Body surface reflex are also required, further need for research is required.

V. Skin Conductivity Resistance

When considering the electric resistance of the epidermis, it is necessary to think about the structure of 3 places (sweat glands, hair, etc.)
follciles, stratum corneum). So far, sympathetic nerves distributed in sweat glands and hair follicles were thought not to be related to Ryodoraku phenomenon (such as a decrease in localized resistance to electrification of the skin). However, in recent research, the reason why the two do not relate is unknown and it should be reconsidered. The most relevant to Ryodoraku phenomenon is considered to be the lower cell of the stratum corneum. If sympathetic nerves distributed there increase its activity, depolarization occurs in the cell group and it is thought that electricity can easily pass through the skin. However, even when sweating, electricity will pass easily. It must therefore be measured energization resistance unaffected by sweating. Therefore, "wet electrode" with the smallest difference before and after sweating is used for measurement.

VI. Ryodoten (Electro Permeable Points)

In a healthy person, using an electrode (wet and dry) with a diameter of about 1 cm, measure the energization resistance value of the skin surface of the body with a direct current of 21 V in voltage. When the resistance value is low, electricity flows easily there. The place appears in the state of a point, and usually you can find many points where such electricity flows easily.

The late Dr. Nakatani named "Electro Permeable Points (EPP)" (1950). However, because it appears also to healthy people, he thought and human physiological phenomenon.

VII. Reactive Electro Permeable Points

Among EPPs, there are EPPs appears particularly clearly in a patient when the voltage is reduced from 21 V to 12 V and searched using a wet electrode with a diameter of about 1 cm. The late Dr. Nakatani named "Reactive Electro Permeable Point (REPP)" (1950). Also, because that phenomenon also appears in patient and unhealthy people, he thought about human pathological phenomena.

In another view, sympathetic nerves in the skin were affected by diseases or stimuli. As a result, resistance to electrification of the skin was reduced, and electricity was very easy to pass there. He set it there as a REPP. It is also important to understand this as a scientific phenomenon similar to acupuncture "acu-points".

REPP is considered to be a pathological phenomenon in which the excitability (reflex) of the sympathetic nerve distributed in the body surface is particularly heightened by disease.

In most cases, if the patient's REPP is stimulated appropriately, the electrical resistance (current value) of the REPPs approaches a healthy person. At the same time, symptoms complained by the patient also disappear or decrease. For this reason, local sympathetic activity is adjusted by stimulation, so that pathological phenomena (reflexes) in the body surface and internal organs, or the body surface and body surface are considered to approach normal values. Therefore, REPP is also a treatment point, and treatment using REPP is called "REPP treatment" and it is thought that it is a local autonomic nerves regulating therapy.

However, in general, electricity tends to be easier for a healthy person in the upper part of the body. Also, electricity is the easiest to face in the face, the upper limbs and lower limbs are more difficult to pass through the
distal part than the trunk part. However, palms and foot palm are easy to pass through again. Therefore, even though they are clearly easy to pass through the voltage of 12 V at these sites, they are not REPP of the pathological phenomenon.

Thus, in the judgment of REPP, there is a difficulty of "physiological or pathological?" However, REPP (treatment point) that is often found in specific diseases and symptoms by experiences is known. So treatment can be done without inconvenience by using these knowledge.

VIII. Ryodoraku

Even when weak electricity is passed through the skin, it is easy to flow electricity, that is EPP and REPP. The name "Ryodoraku" means that REPP appeared in contact with a certain type (line). There are 12 lines of Ryodoraku, and 24 lines are defined for left and right. It is also important to understand this as a scientific phenomenon similar to "meridians" of acupuncture and moxibustion.

Ryodoraku is the line where REPP appears in a specific type, based on diseases of each organ (five organs). Therefore, Each Ryodoraku was added with each organ name before its name (e.g., lung Ryodoraku etc.). However, the two lines were defined as Ryodoraku not closely related to organs. For details of these, refer to the following figures.

EPP and REPP were considered appears by efferent sympathetic activity (reflex). Therefore, In Ryodoraku, autonomic nerve activity (reflex) appears as EPP or REPP, which is considered to appear linearly on the skin. EPP and REPP appear as Internal organ -- Body surface sympathetic nerve reflex. So, Ryodoraku is considered as a phenomenon that can confirm the state and function of internal organs on the body surface. However, Body surface -- Body surface reflex also appears on the body surface, so Ryodoraku appears as a phenomenon that appears with some reflex.

Applying moderate stimulation to REPP that appeared in Ryodoraku, in many cases, organs related to Ryodoraku deeply respond. For example, in the case of bruising the body surface, the bruised Ryodoraku becomes abnormal (emerging or depressed). At the same time, Internal organs -- Sympathetic reflex occurs on the body surface, it is conceivable that it influences the internal organs which are related to that Ryodoraku closely. Furthermore, it is considered that stimulation to Ryodoraku promotes the therapeutic effect for each organ disease.

Because of this, the late Dr. Nakatani made a hypothesis and studied as follows. He thought that efferent sympathetic and afferent nerves (all sensory nerves) are distributed in parallel and secretion of local hormones, etc. in the peripheral part of the sympathetic nerve, which changes the activity of afferent nerves. Even now, in fact, there are many facts that can not be explained without such a mechanism.

IX. Ryodoraku Figure

If you remember the Ryodoraku's systematic figure as much as possible, it is useful for your research and clinical use. For example, if there is abnormality such as conjunctivitis, toothache, uterine disorder, etc., there is abnormality in organs on the line of F2 (liver) Ryodoraku. And stimulating somewhere on F2 Ryodoraku will have a therapeutic effect. Also, among REPPs on F2 Ryodoraku, REPP in which a large amount of current flows is closely related to the abnormality. Therefore, the effect of stimulation of REPP is considered to be particularly large.

In other words, Ryodoraku is the systematic line of the reaction part (systematic line of disease), and it is also the systematic line of the treatment part. For treatment with Ryodoraku, it is important to understand like that.

Related lines of Ryodoraku

The running direction of the Ryodoraku pathways (a), respective related internal organs (b), Symptoms (c) and Diagnosis / treatment points (d).

H1 (Lung) Ryodoraku
a. This begins from the first finger on the palm side and passes along the radius to the armpit and ends at the lung.
b. Lung, Heart, Stomach, Lower cervical Lymph glands, Tonsils, Nose
c. Cough, Asthma, Respiratory painful, Stiff shoulder, Skin (Cold / Numbness), Hem-
orrhoids
d. H₁₂ (中府)、F₄₅₂（肺俞）

H₂ (Pericardium) Ryodoraku
a. This begins from the third finger on the palm side and climbs straight up the inferior line of the forearm and arrives at the chest.
b. Pericardium, Blood vessel, Hand nerve
c. Palpitations, Arrhythmia, Emotional Urgency, Shoulder stiffness, Hand abnormalities
d. VM₁₆ (膻中)、F₄₅₂（厥陰俞）

Sweat gland, Hair
c. Palpitations, Stomach fullness, Constipation, Dysgeusia, Tongue Movement abnormality, Ocular Hyperemia
d. VM₁₃ (巨闕)、F₄₅₀（心俞）

H₃ (Heart) Ryodoraku
a. This begins from the fifth finger on the palm side and climbs the ulna and passes from the arm pit to the chest.
b. Heart, Blood vessel, Gastrointestinal,
c. Palpitations, Stomach fullness, Constipation, Dysgeusia, Tongue Movement abnormality, Ocular Hyperemia
d. VM₁₃ (巨闕)、F₄₅₀（心俞）

H₄ (Small intestine) Ryodoraku
a. This starts from the fifth finger on the back hand side, climbs the side of the ulna, appears on the shoulder and after going to the median line, passes through the supraclavicular fossa with one pathway reaching the medial ocular angle and the other pathway passing through the lateral ocular angle to the tragus.
b. Small intestine, Parotid gland
c. Lower abdominal disorder, Tinnitus, Méniell's disease, Rheumatism
d. VM₃ (關元)、F₄₂₈（小腸俞）

(Main route: Hands – Shoulder – Lung – Nose – Skin)

(Main route: Heart – Stomach)

(Main route: Heart – Shoulder)

(Main route: Hand – Shoulder – Saliva glands – Ear –)
**H5 (Lymph vessel) Ryodoraku**
a. This starts from the fourth finger on the back hand side, climbs the center, passes from the shoulder through the back of the neck and from the upper back tip of the auricle: one pathway leads to the medial ocular angle while the other reaches the lateral ocular angle.
b. Lymph duct (Papillary duct)
c. Lower abdominal disorder, Urinary abnormality, Fatigue, Headache
d. VM4 (石門)、F436 (三焦俞)

![H5 Diagram]

**F1 (Spleen / Pancreas) Ryodoraku**
a. This starts from the inner side of the first toe, climbs the inner side of the foot, passes along the inner thigh to the abdomen, leads through the lower rib part of the spleen, climbs the outer side of the nipple and reaches the throat.
b. Pancreas (Digestive gland / Endocrine glands), Lung, Muscle, Lips
c. Nausea, Stomach upset (Gastric weakness / fullness), Empyema
d. F118 (章門)、F440 (脾俞)

![F1 Diagram]

**H6 (Large intestine) Ryodoraku**
a. This starts from the second finger on the side of the back of the hand, climbs the radius side, enters the shoulder and after reaching the inferior median line, enters the supraclavicular fossa, and from the chin one pathway leads to the teeth of the lower jaw, crosses over from right to left at the central portion of the upper and lower lips and from the immediate outer nostrils reaches the upper inferior of the auricle.
b. Large intestine, Lung, Face (Nose / Mouth), Skin
c. Appendicitis, Cough, Stiff shoulder, Toothache, Skin disease (Eczema / Urticaria)
d. F622 (天枢)、F432 (大腸俞)

![H6 Diagram]

**F2 (Liver) Ryodoraku**
a. This starts from the first toe, climbs the
outside and reaches the F16 where the pathway crosses with and departs from F1 and F3, passes along the inner thigh (on the inner side of F1) and from the hiatus after circling the sexual organ, leads to the liver, climbs close to the premedian line, passes through the eye and reaches the HM26.

b. Liver, Stomach, Reproductive organs (Uterus / Ovary / Prostate / Testicles), Muscles

c. Reproductive organs disease, Gastroptosis, Vertigo, Insomnia, Eye disease

d. F219（期門）、F444（肝俞）

F3 (Kidney and Adrenal glands) Ryodoraku

a. This starts from the center of the sole and as in the case of F1 and F2 after crossing with F1 and F2 at the F16, climbs the inner side of F1 and F2 along the thigh, runs along the premedian line and after encircling the throat, the respective pathways reach the posterior of the auricle.

b. Adrenal (Cortex / Medulla), Kidney, Lung, Bone, Reproductive organs (Ovary / Vagina / Testicles), Throat, Tonsils, Ears

c. Hormonal secretion abnormality, Cold back, Sexual decline, Memory loss, Easy fatigue

d. F321（京門）、F434（腎俞）

F4 (Bladder) Ryodoraku

a. This starts from the outer tip of the fifth toe, passes through the outer ankle bone, enters the popliteal space, and from there two pathways in parallel with each other, climb in parallel to the post-median line of the buttocks, joins again at the back of the neck, and reaches the back of the head and the medial ocular angle.

b. Bladder, Spine, Pituitary gland, Lacrimal gland, Orbital, Ear, Nose

c. Back pain, Sciatica, Posterior neck stiffness, Backache, Epilepsy

d. VM2（中極）、F427（膀胱俞）
**F \(_5\) (Gall bladder) Ryodoraku**

a. This starts from the outer tip of the fourth toe, climbs the center at the outside of the lower limb, circles the abdomen, passes through the vicinity of the liver and gall bladder, and from the supraclavicular fossa passes through the shoulder to the side of the head. and from the lateral ocular angle the pathway encircles the outserside of the auricle while on the other hand (the pathway) from the infracavicular fossa passes through the shoulder and the back of the head and reaches the medial ocular angle.

b. Gall bladder, Muscle, Eye, Nail

c. Head disease, Dizziness

d. F\(_{23}\)（日月）、F\(_{42}\)（胆俞）

**F \(_6\) (Stomach) Ryodoraku**

a. This starts from the second toe and the outserside of the third toe, climbs the lower thigh and somewhat to the outserside of frontal surface of the thigh, passes through the inguinal region and the lower ribs and climbs the nipple, enters the supraclavicular fossa, and from the front of the neck at the angle of the mandible splits off into two branches, and one pathway encircles the mouth, after which the right and left pathways join and climbing the nostrils reaches the front of the neck via the medial ocular angle while the other pathway starting from the angle of the mandible, passes through the front of the tragus and via the side of the head reaches the front of the head.

b. Stomach, Lung, Mammary gland, Mouth, Molar, Nose

c. Stomach disease, Asthma, Arthralgia, Anxiety, Depression

d. VM11（中脘）、F\(_{38}\)（胃俞）

**VM Ryodoraku**

a. This starts from the perineum, passes through the sexual organ, and from the median line of the abdomen crosses with HM at the chest, the oral cavity and the top of the head. On the other hand the pathway branches off to right and left at the upper lip and reaches the lower side of the eye socket.

b. Pubia, Lower abdomen, Upper abdomen, Trachea, Throat, Mouth, Nose

c. Organ diseases in the center of the body (Throat, Heart, Stomach, Pancreas, Bladder etc.)

d. The acupuncture points on the midline
HM Ryodoraku

a. This starts from the perineum, passes up along the side of the spinal column and crosses with VM at the top of the head.
b. Spinal column, Shoulder, Back, Waist, Chapter, Brain, Eye
c. Spinal hyperresponsiveness, Cerebral diseases, Neurosis
d. HM15 (神道) Heart disorder / Language disorder <Tongue function>, HM17 (身柱) Childhood illness, HM21 (瘂門) Language disorder <central nervous system>, HM22 (風府) Hormonal disorders <Pituitary gland>

X. Total Ryodoraku Measurement

To know the degree of abnormality of Ryodoraku, use a graph (or chart) called "Ryodoraku chart". Specifically, measure the current value at the representative measurement point of each Ryodoraku and write the value in each item (H1L to F6R) of the chart. When measured values are lined up in a straight line on the chart, it is set to the "healthy" state. The measured values are high and low. When the width (variation) is 1.4 cm or more, it is set to a statistical "abnormal" state. This width of 1.4 cm is called the "physiological range", and the general variation range of Ryodoraku value is "permissible range". When the Ryodoraku value is particularly high (emerging) or low (suppressing) from this physiological range, it is thought that specific symptoms will appear on that Ryodoraku. By using this method, even if not listening to the complaint of the subject (patient), it is possible to know the symptom from abnormal Ryodoraku. This is called "Not hear diagnosis". Furthermore, we can know abnormal Ryodoraku from a list of symptoms called "Ryodoraku syndrome" examined statistically.
XI. Ryodoraku syndrome

Ryodoraku's representative measurement point (RMP) Relationship between current value and symptoms

<table>
<thead>
<tr>
<th>Ryodoraku</th>
<th>(Excitation) Where the electric flow volume is in excess</th>
<th>(Inhibition) Where the electric flow is minimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₁</td>
<td>stiff and painful shoulder muscles, rush of blood to the head, hot flashes, piles, asthma</td>
<td>cold feet or numbness, shortness of breath, coughing spells</td>
</tr>
<tr>
<td>H₂</td>
<td>stiff and painful shoulder muscles, middle age level wrenched shoulders, brachial neuralgia</td>
<td>palpitation, heat ed sensation of the palms</td>
</tr>
<tr>
<td>H₃</td>
<td>puffed sensation of the stomach, constipation</td>
<td>palpitation</td>
</tr>
<tr>
<td>H₄</td>
<td>headaches, abnormalities of the lower abdomen, joint pain</td>
<td>headache, abnormalities of the lower abdomen</td>
</tr>
<tr>
<td>H₅</td>
<td>ringing ears, difficulty in hearing</td>
<td>tiredness or tendency to tire, the healthy glow disappears and body hairs increase in density</td>
</tr>
<tr>
<td>H₆</td>
<td>stiff and painful shoulder muscles, tooth ache</td>
<td>stiff and painful shoulder muscles</td>
</tr>
<tr>
<td>F₁</td>
<td>general weakness of the stomach, knee joint pain</td>
<td>general weakness of stomach, abnormalities of the knee joint, insomnia, glycosuria</td>
</tr>
<tr>
<td>F₂</td>
<td>insomnia, readily provoked (touchy), abnormalities in menstruation, lumbar pain</td>
<td>faintness or dizziness on abrupt standing up (orthostatic circulatory disorder)</td>
</tr>
<tr>
<td>F₃</td>
<td>fretting and fuming, anxiety</td>
<td>loss of willingness to concentrate and general tiredness, coldness in hips and legs</td>
</tr>
<tr>
<td>F₄</td>
<td>stiff neck muscles, head aches, sciatic neuritis, lumbar pain</td>
<td>stiffness and painful neck muscles, lumbar pain, dullness of the feet</td>
</tr>
</tbody>
</table>

F₅ head aches abnormalities of eyes, dizziness (Meniere's disease)
F₆ anomalies of the joints, middle age wrenched shoulder, elbow neuralgia stiff and painful shoulder muscles, distention of stomach, bloating of face, yawning

XII. Method of Total Ryodoraku Representative Measuring Points (RMP)

1. Preparation for measurement

First, fill the cotton wool containing physiological saline into a cup (ebonite) of the measuring conductor (wet leader) to be the cathode (-) without excess or deficiency. Next, this measurement conductor and a gripping conductor to be an anode (+) are brought into contact (short circuit). A voltage of 12 V and a current of 200 μA are set to flow in the electric circuit formed between both electrodes.
2. Measurement basics

First, the subject (patient) exposes the skin without wrist watch, accessories, clothes, etc. on the wrist. Also at the foot, remove socks etc to expose the skin. Place the hand grip on the patient's palm. If the palm of the patient is very dry, wipe the palm with moistened absorbent cotton with physiological saline. Next, contact the measurement conductor with the skin surface at the representative measurement point at a right angle, gentle and constant weight (about 60 g). Then, the current value is measured. Depending on the equipment (Neurometer) used, the measurement method is slightly different.

A. Analog measuring instrument

Read the current value of the meter visually in about 2 seconds for a fixed time. For example, when counting slowly as 1, 2, 3., visually read the value indicated by the needle of the ammeter.

B. Digital measuring instrument

Usually, The electronic circuit automatically measures the current value after 0.75 seconds. In addition, It is designed with a built-in spring behind the wet part (ebonite cup) of the measuring conductor, and it can be contacted at a constant pressure (about 60 g). Therefore, it is only necessary to focus on the measurement site.

In any of the above methods, once the measurement site is mistaken (measurement mistake), it must be measured again. However, if it is measured again, the measured value will change and there is a risk that the correct measured value can not be obtained.

Therefore, in order not to mistake the measurement site, it is necessary to practice a lot. If you make a mistake, it is better to postpone the measurement site.

3. Measurement method of each measurement site

Sitting or supine position, with both hands pointing upwards. Spread both feet lightly and extend. Usually, According to how to write the chart, start with the left hand H₁L and then the last right foot F₆R.

XIII. Measurements made on Hands (H)

The narrowest point of the wrists namely the surrounding area of the radius and the inferior of the styloid process of the ulna is measured. As shown in the photograph, the left hand of the patient is held palm upward, and the operator holds the patient's wrist with his left hand. The patient's hand is held with the operators thumb and index finger (or middle finger) in parallel.

Next the moist part of the measuring electrode, is held in parallel to the operators second (or third) finger, and brought in contact with the patient's wrist. This is the H₁ point to be measured.

Next following the order given in the chart, the patient's right hand is held in the manner described above. The measuring electrode is held in position along the first finger and where the electrode comes in contact with the wrist is the right H₁ measuring point.

Next, the left hand of the patient is held again, and the center namely left and right of the median line of the wrist is the H₂ measuring point.

Next, the operator holds the patient's left hand and the measuring electrode is released.
along the first finger of the operator. The point where the electrode comes in contact is the left H₃ measuring point. When the electrode is released along the second finger (or third finger) of the operator holding the patient's right hand, the site of contact is the H₅ measuring point.

When, in a left and right manner, the left and right H₁ – H₃ are measured, the palm is turned downward namely with the back of the hand turned upward, H₁ – H₆ is measured as shown in the photograph. Special care must be taken here when measuring H₅ (Lymph Ryodoraku). The required point here is not the center of the hand but along the patient’s fourth finger (medicine finger) and as shown in the photograph, it is on the line drawn on the photograph. In other words, it is slightly on the outer side of the center (on the little finger side).

F₅ is taken on a line between the outer ankle bone and the fourth toe. The point is at the foot of the outer ankle bone mound.

F₆ is a pulsing point. This point is obtained as follows. A line is drawn between the dead center point of the second and third toe and the indentation on the super extensor band between the long digital extensor muscle and the anterior tibial muscle and the half way mark gives the pulsing point.

XV. Ryodoraku Treatment Consists of two Methods of Treatment

A. Reactive electrophermeable point (REPP) treatment

This method is called localized autonomic nerve regulatory treatment. However, satisfactory influences are given to the entire body and it may well be connected with a radical cure. For example in the case of stiff shoulder muscles, when REPP are sought out, considerable individual differences are found. This is because the causes leading to stiff shoulder muscles vary to a considerable extent. It is known that stiff shoulder muscles can be caused by disturbances in the stomach, liver, lung or uterus or may even be caused by constipation. When REPP are accurately pinpointed on the shoulder and treatment is made, since it is connected with the sympathetic nerves, it has a favorable effect on the disease which is the basic cause. Naturally, the stiff shoulder muscles are relieved and at the same time the effect not limited to the regulatory action of the localized autonomic nerves and radical treatment may be expected.

The site where REPP make their appearance in most cases are located in the surrounding area indicated by the patient’s complaints. When the patient complains of pain in the hands, numbness, cold sensations, spasms or cramps, REPP should be sought out and stimulated.

When the patient complains of stomach ailment or liver trouble, the front and back of the cross section should give REPP points. And when a given organ is indicated, find the most clearly indicated REPP on the corresponding Ryodoraku. This will produce still better results.
We also have worked out points based on our experience which we know are effective treatment points for a given disease. The operator should take advantage of such specific treatment points. For instance for pain arising from piles, since it is clinically difficult to locate REPP in the area surrounding the anus, the REPP should be sought out near the coccyx or the sacrum. With regard to the coccyx, the needle is penetrated from the right and left of the coccyx in the direction of the anus and electric stimulation is made. In addition, there is a point HM26 in the parietal area of the head. While the location is on the opposite end of the body, it is known as an effective site for treatment of piles. If the operator memorizes such specific REPP to a certain extent, more effective treatment may be expected.

B. General regulatory treatment (GRR) of the total Ryodoraku

This is a general regulatory treatment of the entire body surface sympathetic nerves. Since regulatory treatment of the entire body surface is connected with regulatory action of the internal organs and central nerves, this may be considered as general regulatory treatment of the autonomic nerve system.

In the case of acute diseases, while REPP treatment gives sufficient effects, in the case of chronic diseases it becomes necessary to regulate or reactivate the entire body, thus GRR treatment should be introduced. In such cases, first Ryodoraku measurements are made and 3 or 4 excitation points and inhibition points are located. For the excitation points the corresponding inhibition points are treated and for inhibiting points the corresponding excitation points should be treated by pasting on ion granules or stimulating with EAP.

If EAP treatment is given to the head alone, the head blood vessels become dilated and afflux may occur. Hence, 6 points on the back namely basic treatment of $F_1$, $F_2$, $F_3$ on the right and left should be made by stimulation. To this important treatment points may be added. Treatment of $F_6$ 9 may relieve afflux.

While ion granules give only a mild stimulation if it is considered that the stimulation is continued for an entire day, it should be understood that the cumulative effect is of considerable strength. For general REPP ion granules and EAP are given. With the exception of treatment of the hands and feet, EAP is used for the treatment of the head and body trunk. Generally hands and feet are treated with ion granules, however when special complaints are made on the hands or feet EAP may be used.

**Excitation points (EP) and inhibition points (Ip)**

<table>
<thead>
<tr>
<th>EP</th>
<th>IP</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_1$ (lung)</td>
<td>$H_{1}$ 3 $H_8$</td>
</tr>
<tr>
<td>$H_5$ (pericardium)</td>
<td>$H_1$ 1 $H_3$</td>
</tr>
<tr>
<td>$H_6$ (heart)</td>
<td>$H_1$ 1 $H_3$</td>
</tr>
<tr>
<td>$H_4$ (small intestine)</td>
<td>$H_3$ $H_8$</td>
</tr>
<tr>
<td>$H_6$ (large intestine)</td>
<td>$H_{11}$ 1 $H_2$</td>
</tr>
<tr>
<td>$P_1$ (spleen · pancreas)</td>
<td>$F_2$ $F_5$</td>
</tr>
<tr>
<td>$P_2$ (liver)</td>
<td>$F_9$ $F_2$</td>
</tr>
<tr>
<td>$P_3$ (kidney · adrenal glands)</td>
<td>$F_7$ $F_1$</td>
</tr>
<tr>
<td>$P_4$ (bladder)</td>
<td>$F_1$ $F_3$</td>
</tr>
<tr>
<td>$P_5$ (gall bladder)</td>
<td>$F_2$ $F_7$</td>
</tr>
<tr>
<td>$P_6$ (stomach)</td>
<td>$F_5$ $F_1$</td>
</tr>
</tbody>
</table>

While ion granules give only a mild stimulation if it is considered that the stimulation is continued for an entire day, it should be understood that the cumulative effect is of considerable strength. For general REPP ion granules and EAP are given. With the exception of treatment of the hands and feet, EAP is used for the treatment of the head and body trunk. Generally hands and feet are treated with ion granules, however when special complaints are made on the hands or feet EAP may be used.

**XVI. How to Locate REPP (Reactive Electropermeable Points)**

It is permissible to use metal electrodes to locate REPP when still unfamiliar with the technic. When a metal electrode is used almost no electric current flows in places other than REPP. Namely when the electrode touches an REPP a sudden flow of current is seen, thus an REPP or a point of treatment can be readily found but the patient feels a mild electric shock.

Therefore when a little skill is acquired, a moist electrode should be used. With a moist electrode however the electric flow difference between an REPP and other areas is small amounting to only a 20 – 50 µA or thereabouts. Thus to clearly pinpoint a suspected REPP, the operator holds the moist electrode at right angles to the skin and while keeping the voltage at 12 volts, the other knob (changeable resistance) is turned so that an electric current of approximately 150 µA flows through. And if the vicinity is lightly searched when the electrode seeks out an REPP approximately 200 µA flows through clearly pinpointing the REPP. In the same area the voltage may be raised from 12 volts to 21 volts.
which makes the search easy. In other words, when conditions are set so that a larger electric flow can be obtained, the difference of the electric flow between the REPP and other areas becomes larger. Therefore, by constantly regulating the voltage and changeable resistance so that 150 µA or thereabouts will flow through when an REPP is reached, the locating of such points becomes easier.

It must be remembered that if the same area is passed over too many times by an electrode the electric flow becomes a stimulation and that as a result the area becomes susceptible to electric flow. This would be confusing so passages with the electrode should be made smoothly and uniformly. This requires considerable practice and skill. As in the case of driving, theory alone is not sufficient and at least some practicing is necessary.

**XVII. Method of Inserting the Needle and Technic**

**Electrical needle holding method**

Hold the autonomous regulatory tube in your left hand, and hold the measuring electrode in your right hand. Then using the tip of your right index finger, the head of the regulating needle tube is tapped. By the first tap the needle penetrates the skin after which with a certain amount of pressure a 0.5 cm penetration is made in one motion. By rapid penetration, the patient feels less pain. Practice until you can insert the needle without causing pain. This technic can be developed until it becomes almost painless. This is followed by slight tapping until the desired depth is reached. Then by bringing the metal part of the electrode together with the regulating needle tube an electric flow occurs. Then using your right thumb hold the regulating needle tube in place and insert the needle still further so as not to cause pain. This should be done gently and with care. Pain is not a necessary condition to make the treatment effective.

Of course the grip electrode is held by the patient. Further, as a highly effective stimulation technic we use the Jakutaku technic. There are other technics of course but for practical purposes, this technic when acquired will suffice. Jakutaku technic (piston stimulation) is a simulation of a sparrow pecking its feed. After the needle is inserted to a certain depth, a light pushing in and pulling out in piston motion of about 0.5 cm is repeated. This is the Jakutaku technic. In this case the needle is not pulled out all the way and pushing in and pulling out is repeated within 0.5 cm. The insertion should be made in a fluid motion and the pulling out should be done with sufficient rapidity so that the muscle clutches at the needle. This produces good results. However the technic is difficult and requires considerable skill. The presence or absence of this skill is readily seen in the difference of effectiveness. When a violin is played, the bow touches the strings and produces exquisite tunes. In much the same manner when the needle touches the nerves, the manner in which the needle touches the nerves may produce a pleasant sensation, or simply pain or an unpleasant sensation. This is decided by the skill or unskillfulness of the Jakutaku technic. Even when accompanied by pain the sensation should still be pleasant to the patient.

This technic is especially effective when knotted muscles or pressure pain spots are present. By the Jakutaku technic the tensed muscles gradually lose their tension and contraction will fail to occur even when stimulation is applied. When such tensed muscles become pliant and free of tension, this indicates the desired amount of stimulation. In the case of sciatica when electric needle treatment is made in the buttocks at times the needle passage is without resistance in
such a case if pressure is applied by the left hand to the buttocks and Jakutaku is performed, the technic will produce its effect. Generally in soft tissue areas where no resistance is met with the effects may not be expected.

Electrical needle insertion method

XVIII. Direction and Depth of Needle Insertion

Generally needles are inserted at right angles to the skin surface however there are cases in which the needles are inserted slantwise or horizontally.

For needle insertion into the scalp, the needle is slid along the bone horizontally to a depth of 1 cm and in the case of F462 at the back of the head the needle is inserted deeply to 2-4 cm in the direction of the eye balls on the same side.

According to the Nakatani system the treatment point for the eyes at the back of the zygomatic arch namely the temporal muscle of the temporal fossa is deeply penetrated. In the case of nose ailments the needle is inserted from slightly under the medial ocular angle in the direction of the nostrils sliding the needle along the bone to a depth of 1-1.5 cm. In the case of tooth aches the skin is penetrated to reach the root of the tooth. In the case of F641 the needle is inserted deeply between the bones for trismus or tooth ache of the lower jaw with good results.

For the front of the neck in such cases as Basedow’s disease the depth of the needle is 0.5-1 cm.

In the case of stiff shoulder muscles, the needle is inserted at right angles to a depth of 2-3 cm.

For the front chest or side chest the depth of the needle should be kept within 1 cm for safety.

In the case of the back or hip, even if the needle is inserted to a depth of 5 cm on both sides of the spinal column there is no danger of penetrating the lungs. If the rear branch of the spinal column nerves are stimulated the internal organs within the influence of the nerves will show improvement.

Since there are no danger sites in the upper or lower limbs, where the muscle layers are thick, better effects may be expected by deep insertions.

Deep insertions, make it easier to depress the excitation of the sympathetic nerves and when the needle is inserted at a shallow depth horizontal to the skin a tendency for the sympathetic nerves to become excited is seen. And because homeostasis of the sympathetic nerves is stronger, there is little chance of ending in failure.

XIX. Intensity of Stimulation

The adjustable resistance knob is adjusted so that approximately 200 $\mu$A flows at 12 volts. Excitatory cells such as muscles and nerves around the needle through the negative electrode (-) are depolarized, making action potential easy to occur. Also, around the electrode needle (close proximity), ions in the body intensively move, local tissue fluids change to alkaline.

H.Oda (1989) has reported that the degree of damage of the tissue is about 30 minutes after the energization, although it is not certain whether these causes are the cause or not.
Furthermore, D. E. Kendall (1989) and R. O. Becker (1985, 1990) argue that this phenomenon is necessary for tissue regeneration.

According to Dr. Nakatani experience, the most satisfactory regulation of the Ryodoraku can be obtained when a 200 µA current is released from the cathode for a duration of 7 - 10 seconds. Where excitation, the excitation is depressed, and where there is depression the excitability increases. In other words in either case the stimulation produces a regulatory effect. We are of the opinion that this is the effect of homeostasis of the sympathetic nerves.

Further, even a 1 second or a 3 second produces a regulatory effect and even in extreme cases where stimulation is prolonged to 30 seconds or even up to 5 minutes, almost no detrimental effects are seen. Thus, it is not necessary to dwell too much on the intensity of a stimulation at one site. As for the electric current even 100 µA or even 50 µA show effects to a certain extent.

All stimulations have either an excitation heightening effect or depressing effect and strong stimulations tend to depress while weak stimulations tend to raise the excitation. This inherent nature of stimulation is being utilized. However, since generally the homeostasis of the Ryodoraku has a stronger effect than that produced by strong or weak stimulations, even when a mistaken stimulation is applied a certain amount of beneficial effect may be expected in most cases, therefore when the amount of stimulation is appropriate the most satisfactory effects may be expected.

This homeostasis is the basis of the bodies effort to recover from a disease, and it is the
regulatory mechanism which works to maintain the necessary conditions for the well-being of life. Therefore it may be said that appropriate stimulation may be defined as stimulations which would enhance the effect of homeostasis to the full, thereby raising the strength of natural recovery.

The intensity of stimulation should also be regulated by the sensitivity of the patient.

Further, when the temperature is high the intensity of the stimulation should be lowered. In other words in summer the stimulation should be weaker than in winter.

When the patient is running a fever generally treatment should by avoided but if the body temperature is around 37.5 °C, stimulation treatment may be given provided that it does not exceed 2 minutes. However, when the objective is to lower the temperature of the patient this may be done.

XX. The Amount of Stimulation

As to the matter of what number of sites over the entire body may be stimulated, from the writers experience, in adults stimulations may be made up to 40 points. As long as this number is not exceeded no side effects will be seen.

However, in patients with chronic diseases, since many of the Ryodoraku have abnormalities, the number of points to be treated will increase, and the number of points may go beyond 40 and even reach 100 points.

For patients not used to stimulations, stimulations should begin from 10 points, go to 20 points in the second session, and then to 30 points and so forth. This is the safest way.

The side effects mentioned here, are cases in which over stimulation results in a dullness or fever. Bed rest for 1 or 2 days will bring recovery. In the writers experience, for such patients weak stimulations (1/2 - 1/3) when continued seem to produce better effects than that in normo-sensitive patients.

Patients who require a drastic change in the amount of stimulations are governed by weight and age. The standard number of stimulation points for those who weigh 60 kg is under 40 points, for people weighing 30 kg under 20 points, for patients weighing 15 kg under 10 points and for infants weighing 6 kg under 4 points. In the case of infants or children, in addition to the number of points the electric current should be regulated accordingly.

XXI. Contraindications and Cautionary Remarks

A. Where not to puncture.

In acupuncture and moxa treatment there are sites where needles are prohibited or sites where moxa treatment are forbidden. These sites were learned by errors. In the case of moxa treatment, it is advised not to treat facial areas, or areas near bones or blood vessels when pus formation is present. In such cases perostitis or inflammation of the blood vessels may have occurred. Electric needle stimulation of such sites are prohibited.

In the case of electric needle stimulation, the most dangerous of all is the possibility of piercing the lung. Since there is danger of causing pneumothorax especially when the patient is thin and the shoulders or back are being treated. utmost caution must be taken.

Piercing of the heart is also highly dangerous. It is advisable not to forcibly penetrate or deeply penetrate the back area of the heart especially when the patient has a heart condition.

If a too deep penetration is made between the ribs intercostal neuralgia may occur. In such a case the only remedy is an injection of local anesthetics. or the Ryodoraku related to the pain may be used to stop the pain but in such a case the pain usually persists for 1 or 2 days in most cases.

Generally it is not necessary to penetrate the organs. In the writers case, penetrations are made in the stomach, pancreas and bladder; but this is done on the writers own responsibility. From my 25 years of experience no damage was done to these organs. However, from a view point of modern medicine it may be frowned upon to pierce internal organs so my advice is against such practice. It is also advisable not to penetrate the eye balls or mucous membrane.

If the needle comes in direct contact with a nerve or ganglion, an electric
shock like response may occur and may even cause shock, hence extreme caution should be taken. However, this may be used as a therapeutic method. But until the operator gains considerable experience, he should not attempt such treatment. Generally in stimulation of the nerves, side effects that may lead to trouble do not occur, however there are cases in which the patient loses strength to stand temporarily. In such a case, if the stimulation is repeated at the same site, the patient can stand again and the numbness will also disappear so it is not a case to cause worry. Including the REPP, such points as follows over the entire body can be used as treatment points: hypersensitive areas, tender spots, stiffened or bunched muscles, paralyzed points, bruised areas, blood vessels, ganglions which are the so-called KEIKETSU.

**B. The needles**

A single use of a disposable electric needle is preferable for treatment. If re-inserting, disinfect alcohol. Normally, the needle will rarely break. If the needle breaks in the body, appropriate medical procedures must be taken immediately.

**C. Pain treatment**

When treating pain, instruct the patient to bend and stretch the body and ask for a good reaction point (REPP) in a painful state. If you apply an electric needle there, the treatment effect will be enhanced.

**D. Bathing**

Taking baths 2 hours before or after treatment should be avoided.

**E. Sexual intercourse**

It is generally accepted that during the treatment period, normal sexual activities in married life should be abstained.

**F. Drinking alcohol**

Treatment should not be made when the patient has had alcoholic beverages. The patient should not drink at least 3 - 4 hours after.

**G. Out-patients**

In the summer when out-patients arrive do not commence treatment upon arrival. In such cases the patient may become nauseated. So the treatment should be started after 20 - 30 minutes of rest.

**H. The treatment**

Generally treatment starts from the top downwards, however in patients who are prone to fainting spells the treatment should be started from the feet upwards.

**I. Interval**

The time spacing between treatments is generally as follows: every day, every other day, once in 3 days. This is figured out on the basis of how far the patient has to travel to get to the clinic, the number of sites to be treated, whether the ailment is chronic or acute. With additional treatment with ion Kernels, 2 or 3 times a week give the best results. In the case of small children, ion Kernels alone may suffice.

**XXII. After Word**

In Ryodoraku treatment the most rapid effect is seen in pain. In so-called arthritis, or head aches, eye pain, ear pain, tonsillitis pain, gastritis, abdominal pain, gall stone pain, bladder stone pain, joint pain, the sedation of pain is remarkable. Unlike the sedation of pain by chemical agents, Ryodoraku treatment not only lessens the pain, but by the regulatory effect of the autonomous nerve system, the increase of white corpuscles increases the natural defense of the body and brings about radical treatment of the disease itself. We invite prospective operators to see the treatment and we hope you will visit us and watch the treatment. The next step and the first one for an operator is to seek out the REPP in the patients complaint area with the spring type electric needle (Trade Mark) and administer electric stimulation. For the prospective operator, the operator himself rather than the patient will be impressed by its effectiveness. It must be remembered that this simple stimulation when compared with the effect of skilled Jakutaku is almost nothing.

When a patient complains of a tiredness of the eye, a glare when eyes are opened, a heaviness of the head, a bloated sensation of the stomach, a tiredness of the feet, numbness of the hands etc., hitherto, medicine was
prescribed with the hope that relief would come eventually. In such cases with electric needle stimulation, a dramatic spontaneous relief of such complaints fills the operators heart with joy, life can be happy indeed when the operator can bring immediate relief to such patients. It is not infrequent that one will be struck with the good luck that he has become a medical practitioner. From treatment involving only the administration of medicine, electric needle Ryodoraku treatment which has no side effects can produce spectacular results even in difficult or advanced diseases.

It is our fondest hope to advance or expand this physical therapy to bring instant relief and comfort to as many patients as we can reach.

It is a recent event that needle (acupuncture) anesthesia of the Peoples Republic of China was reported in medical therapy news. Approximately 15 years ago a medical delegation from the Peoples Republic of China during their visit to Japan turned their attention to Ryodoraku research and eventually they visited Dr. Nakatani's Clinic.

There the delegation made a detailed observation of Ryodoraku medical examination and treatment. It is reported that they were amazed and astounded at the superiority of the theory and therapeutic effects. In the daily newspapers of the Peoples Republic of that time, articles concerning Ryodoraku examination and treatment together with case reports of treatment were published widely following which insistent requests were made to Dr. Nakatani to invite him as a guest of the Peoples Republic of China. Dr. Nakatani declined and forthwith reports concerning Ryodoraku treatment in the Peoples Republic have stopped reaching our attention. However, it seems that in the mean time in the Peoples Republic the Ryodoraku treatment was incorporated into European medicine, and we understand that research along these lines is being dealt with as modern medicine. This is the needle anesthesia reported from the Peoples Republic of China today.

Reference