International Federation of Ryodoraku Medicine

iFRM

The 1st Symposium

第１回 国際良導絡学会シンポジウム

International Symposium for IFRM commemorate the establishment

8-9 October 2016

Hokkaido / Japan

Program, Abstracts, Proceedings

Final Program – Abstracts and Proceedings

Contents

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- Kentarou MORI
- Kazuhiro MORIKAWA
- Haruna SAGA
- Masaki SAITO
- Hirokazu SASAKI
- Takafumi YAMADA

(Alphabetical order)

General information

iFRM 2016 Stuff

Symposium venue

The Symposium takes place at the Hokkaido University Conference hall at the Sapporo in Hokkaido.

Registration

Registration desk is situated in the hall of the symposium.

Registration desk opening hours:

October 8-9, 2016: 9:00-17:00 hrs

Registration items

Your symposium registration includes access to the scientific program, workshop and exhibition area, final program-abstracts and proceedings.

Symposium Office

c/o IFRM in Nakane
Rehabilitation Internal Medicine Pediatric Clinic
10-2-1, Minami 32 Jyo-nishi, Sapporo-shi, Hokkaido, 005-0032, JAPAN.
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Format Poster Presentation

Your topic could be described on a printed poster or by photographs, graphics and pieces of text that you attach to the presentation panel. All IFRM official languages –English –are welcome.

Presenters of a poster will be expected to be present 12:00-13:00 on Sunday 9 October 2016 in order to explain their poster and to hand out any other information papers, they have available for viewers of their poster.

For printed posters, the recommended poster size is 86cm wide x 176cm high Each presenter can only present one poster.

The poster display is possible from Saturday 11:00 to Sunday 16:00. However, we remove it afterward. You remove it by Sunday 16:00 if you need it.

Program

(Official language : English・Japanese)

8th Saturday

13:00~

Special lecture

"Yamamoto New Scalp Acupuncture "

Toshikatsu YAMAMOTO MD PhD

Director of Yamamoto Hospital, Aishinkai Medical Corporation, Chairman of YNSA (Yamamoto New Scalp Acupuncture) Association

9th Sunday

9: 00 ~

President lecture

"Looking back of the teachings from Dr.Yoshio Nakatani in the past days"

Toshie NAKANE MD PhD

IFRM President,

Head doctor of Nakane Toshie Rehabilitation & Pediatrics Clinic

10:00 ~

Keynote lecture

"On the Way of Scientific Stimulus Therapy"

Hirohisa ODA LAc PhD

Former President of MEIJI COLLEGE OF ORIENTAL MEDICINE (MCOM) -in Berkeley California USA.

11:00 ~

ifRM Establishment ceremony

11:45 ~

Lunch and Q&A to poster presentation

14:00 ~

Workshop

Basic Practice

Measurement・Diagnosis・EAP<electrical acupuncture>

Clinical Application such as TP therapy

Toshikatsu YAMAMOTO MD PhD

IFRM Scientific Adviser

Director of Yamamoto Hospital, Aishinkai Medical Corporation,

Chairman of YNSA (Yamamoto New Scalp Acupuncture) Association

Although called “new”, YNSA exists already almost 50 years and has been changed, or new Points added many times.

Starting off with **5 Basic Points** situated along the frontal hairline. Used mainly against pain, occasionally also for internal organ disfunction.

Sensory Points, Eyes, Nose and Mouth. situated on the forehead in a line down from the A Point.. For treatment of Sensory Organs.

Y-Points mainly for internal disorders, situated in the temporal regions on both sides.

Diagnostic Points were found on the abdomen and the neck, to ensure which Point has to be treated, as well as after needling, to check that the treated Point was exact .

Brain Points are situated on the frontal scalp. Cerebrum-Point above the Basic A-Point, Cerebellum-Point in posterior position and Basal Ganglion-Point in between. like in the anatomic order

12 Cranial nerves are bilateral to the scalp Midline starting just above the basic A Point with the olfactorius , leading posterior for a length of about 6 cm.

Because it was difficult for some participants to recognize the Neck Diagnostic Points, and Abdominal Diagnostic Points are rather time consuming because undressing and lying on the examination bed I worked on finding yet something else, that are the **Upper Extremity diagnostic Points,** easy to recognize but not as precise as the Neck diagnosis.

All YNSA Points are represented on both sides of the scull as well as in Yin frontal position, and Yang in the posterior position about 2 cm. lower, over the lambdoidal suture.

President Lecture Summary
Looking back of the teachings from Dr.Yoshio Nakatani in the past days

Toshie NAKANE MD PhD
Head doctor of NAKANE Toshie Rehabilitation Internal medicine Pediatric Clinic

RYODORAKU which was discovered in 1950 by Medical Doctor/Ph.D Yoshio NAKATAI's inquiry was made the 3,000 years historical acupuncture into scientific way, and using skin conductivity resistance theory through autonomic nerve, and effects vis mediatrix naturae and takes an effect as holistic integrative medicine and fuse in modern history until this day up to the 21st century and has great contributed to health prevention.

There are no end of gratitude that we will be able to hold the first symposium and workshop in Sapporo to commemorate the establishment of IFRM, together with the good memories of the days traveling to international federation with Doctor NAKATANI. Please accept my sincere congratulations on the first symposium of IFRM in Sapporo with all of the members.

Furthermore, we will be able to hold the first symposium of IFRM at Hokkaido University conference hall through the kind offices of Takao SANO MD.PhD who is Congress President of the 68th Congress of JSRM at the same time.

Moreover, there will have a special lecture of Toshikatsu YAMAMOTO MD/PhD; IFRM Adviser / Director of Yamamoto Hospital, Aishinkai Medical Corporation / Chairman of YNSA; Yamamoto Style New Scalp Acupuncture Association.It's a golden opportunity to absorb the wide knowledge of YNSA for all the members.

Let me say that I pray the first symposium will end successfully and I will fulfill my responsibility.

会長講演
ありし日の医学博士中谷義雄先生の教えを顧みて

中根敏得 MD PhD
中根敏得リハビリテーション内科・小児科医院・院長

1950年に、故中谷義雄医博の研究によって発見された良導絡は、3000年の歴史を持った鍼灸を科学化し、皮膚通電抵抗の理論により、自律神経を介して、自然治癒能力に作用し、効果を挙げる全人的統合医療として、近代医学の中で融合して21世紀に至る現在まで、保健予防に多大な貢献をして参りました。

中谷先生とご一緒に、国際学会旅行をさせていただいた日々の思い出とともに、この度、一般社団法人・国際良導絡学会設立を記念して、第一回シンポジウム並びにワークショップを札幌の地において開催できますことは、まことに感謝に絶えません。会員の皆様と共に心からお慶びを申し上げます。

なお、第一回国際良導絡学会設立記念学会は、第68回日本良導絡自律神経学会学術大会、大会長・佐野敬夫先生のご尽力により、北海道大学学術交流会館において、同時開催の運びとなりました。

また、国際良導絡学会の顧問としてご要請致しました「山元式新頭針療法学会」会長、医療法人 愛鍼会 理事長・山元敏勝先生の特別講演も行われます。

会員の皆様に置かれましては、広い知識を吸収できます絶好の機会と存じます。盛会のうちに無事終了し、わたくしの責任を果すことができますよう祈念して、ご挨拶といたします。

Keynote Lecture Summary
On the Way of Scientific Stimulus Therapy

Hirohisa ODA LAc PhD
IFRM Vice-President, Mahoroba TOKYO
Former President of MEIJI COLLEGE OF ORIENTAL MEDICINE (MCOM) -in Berkeley California USA.-

Ryodoraku autonomic nervous system therapy was invented by the late Yoshio Nakatani, MD, Ph.D in around 1950. It is termed THAT Ryodoraku is the scientific acupuncture. There are various acupuncture schools in Oriental Medicine, and it shall be discussed with the school selected by Dr. Nakatani, and how it was applied to, and different from Ryodoraku. The characteristic point of Ryodoraku is to measure the skin electric resistance on the representative point. The skin part where the electric current can flow easily, and where the electric current flows in reactive electric permeable point, Hanno Ryodo Point, are shown with electro photography. The relation between Ryodoraku and skin dermatome shall be discussed. A study result of the correlation between RR interval and the average of Ryodoraku on the Chart, and the statistical analysis among electric measurement values on the Ryodoraku representative points shall be introduced.

Needle is inserted clinically to stimulate not only the skin, but muscle also. The tissue injury by needling with micro direct current that can give more effect than simple mechanical stimulation and the tissue shall be shown. The definition of the stimulation, more effective electro stimulator, and measurement system shall be discussed for the future scientific Ryodoraku.

基調講演
良導絡の科学化に関する考察

iFRM 2016 Summary

小田 博久 LAc PhD
IFRM 副会長, まほろば東京
メイジ・カレッジ・オリエンタル．メディスン（バークレー，カリフォルニア，USA. / 元学長）

良導絡自律神経調整療法は、1950年ころ故中谷義雄博士により始められた刺激療法であり、東洋医学の科学化であると称されている。鍼を用いた東洋医学における流派は各種あるが、中谷氏が選んだ流派とその応用と良導絡との違いを示す。

良導絡の特徴は、代表測定点の皮膚電気抵抗を測定することである。皮膚における電気が流れやすい部位、また反応良導点ではどのように電気が流れているのかを電気写真で示す。皮膚デルマトームと良導絡の関係を考察し、RR間隔と良導絡代表測定点平均値との関係を述べ、さらに、各良導絡代表測定間の統計学的な相関を論じる。

臨床では皮膚のみならず筋肉を刺激するために鍼を刺入する。機械的刺激よりも効果の高い直流電気鍼による組織損傷を示す。刺激について論じてより効率の高い電気刺激装置を提唱するとともに、新しい測定器機器について触れることにより将来の良導絡のあり方について述べる。

Poster 01

Case report on the effect of acupuncture for Parkinson's disease
(Masaaki JIN / JAPAN)

Poster 02

Acupuncture and Ryodoraku Chart for Dizziness
(Haruna SAGA, Mieko NAGUMO / JAPAN)

Poster 03

Two cases on the improvement of hypersensitivity to the coldness resulted by acupuncture treatment of low back pain --View point from the Ryodoraku chart--
(Masaki SAITO, Mieko NAGUMO / JAPAN)

Poster 04

Case report of Ryodoraku electroacupuncture for dysphagia
(Rie NAKANE / JAPAN)

Poster 05

Would the cathode current influences the biological activities?
--Inferred from the growth of radish sprouts--
(*Hiroshi ENDO, Takafumi YAMADA / JAPAN*)

Poster 06

A Case Series: Change of Patellofemoral Congruency and Reduction of Anterior Knee Pain with Ryodoraku Therapy
（*Michael Y. M. Wong / HONG KONG*）

Poster 07

Correlation of RR and the distance of measurement average value from the lower limit position of the Ryodoraku Chart
(Hirohisa ODA, Osamu HASHIGUCHI, Raimu NINOMIYA, Satoru INOUE / JAPAN)

Poster 08

Experimental Study on Successive Influence of Needling Stimulation to the Autonomic Nervous System measuring the Iris Diameter
(Osamu HASHIGUCHI, Hirohisa ODA, Kumiko FURUNO, Takuo ISSHI / JAPAN)

Case report on the effect of acupuncture for Parkinson's disease

iFRM
2016
Poster 01

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Purpose

The incidence of Parkinsonism, one of the so-called intractable diseases, has in recent years increased. Its symptoms are reportedly due to the gradual degeneration of the nervous system characterized by tremor at rest (a tremor that occurs when the muscles are not used), and muscle tonus (muscular rigidity) slowing of voluntary movements.We examined the emission of biophotons from the body of external acupuncture during application in order to activate releasing of the chemical transmitters. Here we report the results of measuring the effect of acupuncture with its characteristics of extremely weak photoemissions from the body viewed as an attempt for the physical recovery

Methods

Acupuncture was performed for patients with the above described symptoms, measuring the emission of biophotons from the body with an appropriate measuring device. The measurements were performed at the tip of the index finger of the right hand close to the nail bed at location of the acupoint LI-1. The measurement was performed for each person over a period of 500 seconds.

Results

The figures show a comparison of the tremor of the index finger of the right hand before and after acupuncture. Before treatment there was a fine tremor of the finger tip and spasm of the fingers (before treatment). The testee was a man and the selected treatment location included multiple acupoints below the right shoulder stimulated by inserting needles, performing the sparrow-pecking technique and subsequently retaining the needles for 3 to 5 minutes. After that the spasms stopped (after treatment).

Discussion and conclusions

There is a large body of data from numerous patients pertaining to the use of western medications, but research from an oriental medical standpoint using acupuncture therapy has just begun. For the evaluation of the effect of the acupuncture therapy the collection of further data from more testees in the future will probably clarify the efficacy of the acupuncture therapy.

Key words: Parkinson's disease, photodetector for extremely weak biophotons, emission of biophotons, dipamine, neurotransmitter

Acupuncture and Ryodoraku Chart for Dizziness

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2016
Poster 02

Haruna SAGA, Mieko NAGUMO
Nagumo Acupuncture and Moxibustion Clinic (Japan)

Objectives:

We examined acupuncture treatment for three patients with dizziness.

Patient 1: 41-year-old female.

Initial consultation (IC): March, 201X. Chief complaint (CC): Dizziness. Past history (PH): Meniere's Syndrome at 21 years. History of present illness (HPI): Benign paroxysmal positional vertigo five years previous to IC. Present illness (PI): Dizziness when moving. Right neck-muscle induration, tinnitus, headache, insomnia, cold lower limbs, low back pain, poor appetite, edema. Treatment: F23（LR3）,F36（KI3）,F19（SP9）. HM26（GV20）,F525（GB20）,F532（GB12）F524, and（GB21）to alleviate neck/shoulder stiffness (all three cases). Needles: 0.16mm diameter, 30 mm length, retained ten minutes. Course: Treatment three times/ three months after IC alleviated dizziness. Dizziness recurred March one year after IC. Treatment three times/ two months alleviated dizziness. No recurrence.

Patient 2: 41-year-old female.

IC: March, 201X. (CC): Dizziness. HPI: Dizziness five days previous. Otorhinolaryngologist diagnosed otolith misalignment. PI: Dizziness (rotatory), nausea, tinnitus, yawning, hot flashes, extremity coldness, left neck/shoulder stiffness, work stress. Treatment: F23（LR3）,F36（KI3）. Course: Dizziness disappeared in May. Treatment: three times/two months.

Patient 3: 74-year-old female.

IC: April, 201X. (CC): Dizziness. PH: Uterine myomectomy at 37 years. Heart enlargement. HPI: Fell with dizziness in April, hospitalized ten days. Brain CT: no abnormality, shoulder stiffness was considered to be the cause of dizziness. PI: Dizziness (rolling), left tinnitus, neck to mid-back stiffness, eyestrain, sluggish lower limbs. Treatment: F23（LR3）,F36（KI3）. Course: Dizziness cleared June. Treatment: five times/two months.

Discussion/Conclusion: In these three cases, dizziness appeared in the spring. (*Huangdi Neijing Suwen*) discusses the relationship between spring and the liver. We consider the relationship between the ears and the kidneys means that liver and kidney harmonization is required. In modern medical terms, we consider somatosensory stimulation of subcutaneous tissues and skeletal muscles acts on the central nervous system, improves inner ear lymph and blood circulation, and improves dizziness. These suggest that acupuncture treatment is useful for dizziness.

Keywords: Dizziness, Tinnitus,Stiff shoulder

Two cases on the improvement of hypersensitivity to the coldness resulted by acupuncture treatment of low back pain

iFRM
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Poster 03

Masaaki SAITO, Mieko NAGUMO
Nagumo Acupuncture and Moxibustion Clinic (Japan)

Objectives: We report here two cases in which acupuncture for low back pain (LBP) with intense coldness increased both the body temperature and improved sensitivity to the cold.

Patient 1: 65-year-old male. Chief complaint: Pain from LB to L/R thighs and intense coldness in extremities.

Past history: At age 37, Rheumatoid arthritis and coldness in extremities. At age 55, temperature 35.1°C (armpit); age 40, psoriatic arthritis; age 60, polymyositis; age 62, lumbar spondylosis. History of present illness (HPI): Pain in LB to L/R thighs one-month previously, difficulty in walking. Legs extremely cold. Findings: Tenderness (++) at pain site, Lasegue test (–). Treatment: SEIRIN Japan, 0.12 mm diameter, 30 mm length needles retained ten minutes at F432 (BL23),F430 (BL25),F445 (BL54),F515 (GB30),F36 (KI3), F610 (ST36) and L/R thigh tenderness. Sennenq-moxa to soles. Cold parts warmed with heat packs and far-infrared heater. Sennenq-moxa to soles daily at home. Course: LBP improved, body temperature increased to 36.3°C and coldness in extremities improved. (24 treatments, five months)

Patient 2: 48-year-old male. Chief complaint: Pain from right LB to right buttock and intense coldness in both legs.

HPI: Pain from right LB to right buttock one-year previously. No abnormal X-ray findings. Temperature (armpit): one-year previously 34.8°C. Coldness below ankles for ten years. Findings: Tenderness (++) in pain site, Lasegue test (–). Treatment: Electro-acupuncture at F432 (BL23),F430 (BL25),F446 (BL53), and F445(BL54)(three Hz, ten minutes). Cold parts warmed with heat packs and far-infrared heater. Course: LBP improved, body temperature increased to 36.1°C, coldness in feet improved. (18 treatments, four months) .In addition, both cases, Ryodoraku average amount of current to the preoperative, saw an increase in post-operative.

Discussion/Conclusion: Coldness is caused by temperature regulation dysfunction in the cranial autonomic nerves.

Acupuncture and heat packs to alleviate LBP increased body temperature. We surmise stimulation of the skin (temperature sensors), subcutaneous tissue and skeletal muscles acted on the central nervous system, restored balance to temperature regulation and increased temperature. This suggests acupuncture is useful for maintaining and improving temperature regulation.

Keywords: Sensitivity to the cold, low back pain (LBP), Acupuncture, Sennenq-moxa

Case report of Ryodoraku electroacupuncture for dysphagia

iFRM
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Poster 04

Rie NAKANE MD
NAKANE Toshie Rehabilitation Internal medicine Pediatric Clinic

【Aim of Investigation】 There are current topics of the approach for dysphasia result from cerebrovascular disorder, which are low frequency current therapy of suprahyoid muscles and botulinum toxin infusion to criopharyngeus muscle as peripheral approach, and repeated transcranium magnetic stimulation and transcranium direct-current electrical stimulation as noninvasive central approach. Also, there is iterative facilitation technique with continuous low frequency current therapy for hemiplegia. So that, we have an idea that we will be able to treat dysphasia easily with Ryodoraku electroacupuncture. First of all, we evaluate by autonomic nerve measurement and videoendoscopic(VE) & videofluoroscopic(VF) examination of swallowing. And then, we do swallowing training with Ryodoraku electroacupuncture. We could make a good improvement of swallowing function. We would like to report one of the following case.

【Case】 76y/o man, Cerebral infarction occurs on July 2015, his findings are hemiplegia/dysarthria/and dysphagia. Chief complaint is “Get the food stuck in his left side throat.” There shows the food stuck in his left side and also right side of the hypopharynx on VE&VF. And he needs right/left sideways swallowing and liquid/solid food mutual swallowing to take the stuck away.

【Methods】 Low frequency current needle therapy of the Reactive Electro Permeable Points(REPP) of right and left side in suprahyoid muscles and hypohyoid muscles; 30Hz・intermittenltly・20minutes with swallowing training. Also General regulatory treatment of the total Ryodoraku(GRR); 30 times.

【Results】 He could be able to swallow without getting stuck on the left side of throat. And also he could feel the stuck on the right side and became the better.

【Conclusion】 These approach is easy and effective method for dysphasia.

Would the cathode current influences the biological activities?
-Inferred from the growth of radish sprouts-

Hiroshi ENDO [1], Takafumi YAMADA [2]

1) Director of Ryodoraku Acupuncture Resource Center at Shitenno-ji

2) Director of Hikiyama Acupuncture treatment center

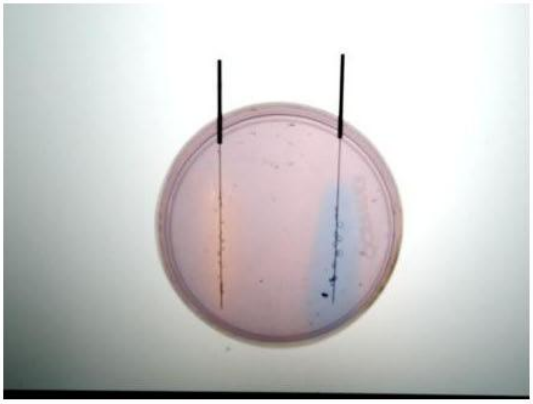
Objective:

Generally an acupuncture treatment is a therapy to prick the body with metallic acupuncture (a needle). And tissue damage is given the body by mechanical stimulus of the acupuncture. It becomes rate-limiting the stimulation, and "Qi" works. An improvement of illness is expected by a function of Qi.

Such acupuncture treatment was introduced from China to Japan. However, an original acupuncture treatment developed in Japan, too. The acupuncture treatment is physiotherapy named "Ryodoraku therapy". Ryodoraku therapy, the meridian measurement and acupuncture electrification are uniqueness.

By acupuncture electrification, cells located in neighbourhood of an acupuncture electrode in electrification turn potential change. It is action to induce activity of voltage dependency sodium channel on a cell membrane. As a result, action potential is generated. That is to say, Cells are activated by electric stimulation. We think that the efficiency is good and can stimulate cells by electricity. However, it is a case through the cathode to a needle.

There is another change in acupuncture electrification. Around tissue fluid of acupuncture turns into alkalinity by cathode electrification. In our in-vitro experiment, the around tissue fluid (saline and plasma) of electrification acupuncture showed alkalinity (Figure 1).

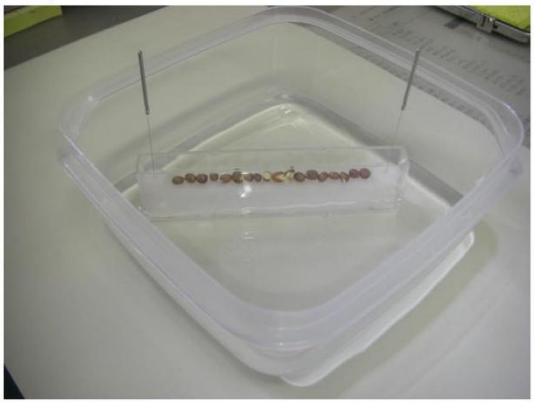


R.O.Becker have reported that a change to alkalinity of tissue fluid promotes regeneration power of tissue 1). Smith S.D. and J.Black demonstrated the effect in animal experiment, and they described when anagenesis or Natural healing power were generated by a change to alkali of tissue 2) 3) 4). Does such power produce even cathode electrification of the Ryodoraku therapy? Examination for this question will be necessary.

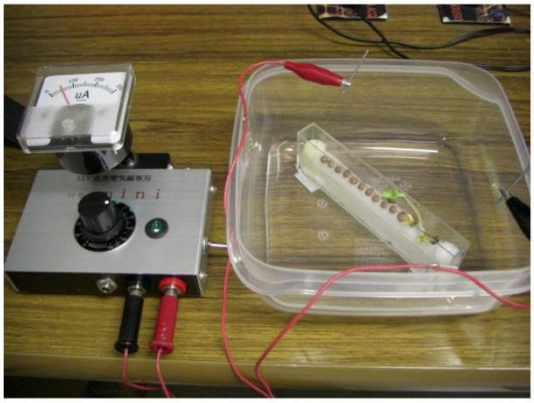
Methods:

The cathode applied an electric current to Radish sprouts, and we observed the growth. We used the case (about 1cm wide, 10cm long, 3cm deep) for this experiment. And the case put 1cm

under cotton from a bottom and filled the cotton with saline. The seed plant of Radish sprouts was put on the cotton. (Figure 2)

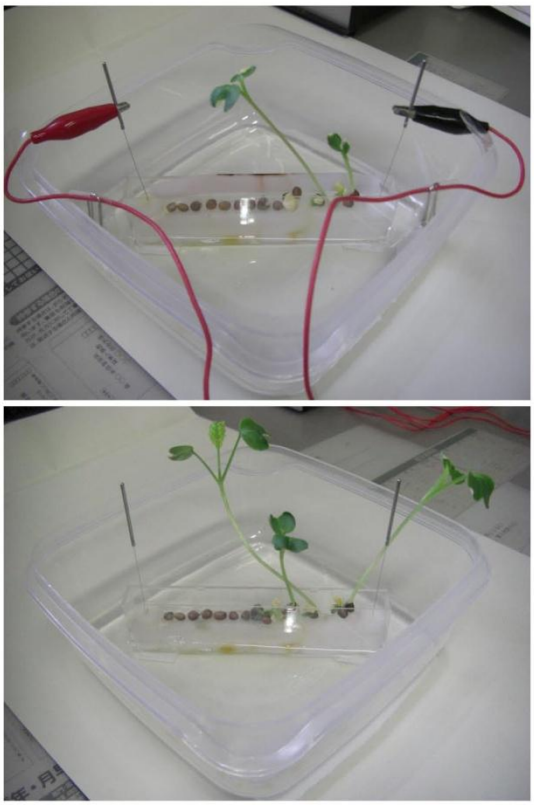


It was applied an electric current by two acupuncture electrodes that 9V 100 μA was located in both end of the case. The electrification was continued till to some extent Radish sprouts grew. Acupuncture electrodes are 50mm long, thickness 0.22mm (made by SEIRIN Co.ltd). An electrification device is the instrument which Mr. Yamada made. (Figure 3)



Results and Consideration:

Radish sprouts germinated after two days of experiment start and grew up smoothly afterwards. The growth of Radish sprouts of cathode side grew up more conspicuously than the anode side. We thought that cathode side in electrification promoted growth of Radish sprouts. By cathode electrification in acupuncture electrification, a similar phenomenon may occur in the human body. Therefore, in tissue of cathode side, it was suggested to have to search for the bioactive factor which participated in growth. (Figure 4, 5)



It is thought so that a new treatment efficacy theory is added to direct current electricity acupuncture by Ryodoraku therapy. When having been able to discover scientific relation between acupuncture cathode electrification and the factors

Key word: Anagenesis, Ryodoraku treatment, cathode electrification

References

1) Robert O.Becker and Gray Selden: The Body Electric, 150-160, Quill William Morrow New York, 1985.
2) Jonathan Black.: Animal studies, in Electrical Stimulation –Its Role in Growth, Repair, and Remodeling of the Musculoskeletal System, 125-144, Praeger Publishers, 1987.
3) Smith SD: Effects of electrode placement on stimulation of adult frog limb regeneration, Ann.NY.Acad.Sci,238:500-507,1974.
4) Smith SD: Electrically induced regeneration, Naval Res.Rev.33(4):24-31, 1981.

A Case Series: Change of Patellofemoral Congruency and Reduction of Anterior Knee Pain with Ryodoraku Therapy

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Key words: Ryodoraku; anterior knee pain; patellofemoral joint

AIM OF INVESTIGATION

Anterior knee pain (AKP) affects approximately 25% of the population at some stage of their lives (McConnell 1996); the ailment can be chronic and have lasting effects on patients' quality of life (Souza & Powers 2008). AKP can be caused by an excessive lateral patellar displacement (Figure 1) that leads to strain on the retro-patellar subchondral bone (Draper et al 2006). The following paper illustrates a case series of AKP treated with Ryodoraku therapy.

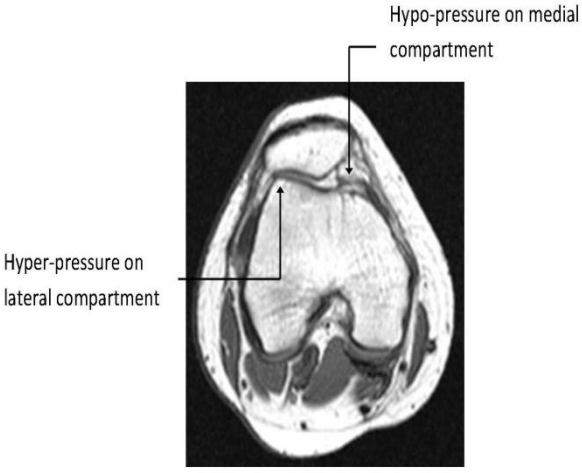


Figure 1: Right knee at inferior view illustrates the observable lateral patellar displacement. The excessive displacement could cause extra-pressure on the lateral patellofemoral joint that stresses the subcondral bone, and reduced pressure on the medial side may lead to local malnutrition of the cartilage.

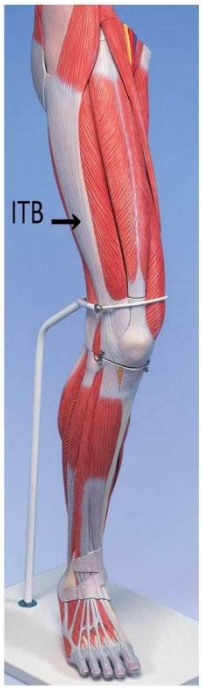


Figure 2: Anatomical model of right leg. ITB= iliotibial band.

METHODS

Participants: Three patients (all male, 29 to 35 years of age) with unilateral AKP, two with right side and one with left side. All the patients had been former amateur full-contact kickboxing athletes who, after their retirements from competition, still suffered from AKP for at least 6 months. Based on their physicians' diagnosis, the patients' affected leg repeatedly receiving kicks at the lateral mid thigh during competitions caused inflammation and consequent fibrotic scarring of the iliotibial band (Figure 2). Because the iliotibial band is a connective tissue and acts as the lateral patellar stabilizer, the scarring can reduce the elasticity of the band and biomechanically displace the patella laterally (Peffers et al 2014, Fairclough et al 2006). As the patients were referred to our clinic for Ryodoraku therapy, they all received an explanation about the aim and methods of the case study and their written informed consents were obtained in accordance with the ethical standards of the Declaration of Helsinki.

Objective assessments: Magnetic Resonance Imaging (MRI) was used to scan the affected knees and determine the patellofemoral joint congruency in supine knee-expended position (Magneton Avanto, Siemens Medical Solutions, Inc., USA). The MRI revealed all the scanned knees had lateral patellar displacement in which two out of the three were graded excessive based on a parameter named lateral patellofemoral length (LPL) (Nicolaas et al 2011) (Figure 3 and Table 1).

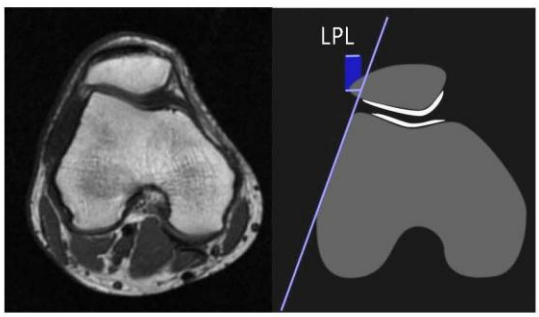


Figure 3: Axial view of right patellofemoral joint. The lateral patellofemoral length (LPL) is the distance between the most lateral part of the patella and the line drawn parallel to the lateral side of the femur condyle. The LPL over 4 mm is considered as excessive lateral patellar displacement.

The patients also took the Ryodoraku diagnosis that determined if an individual Ryodoraku line (meridian) is excessive or deficient in comparison to the average of the bilateral 24 lines (Saita 1973). The diagnosis showed two patients with a deficiency of F5 (gallbladder meridian), and one patient with a deficiency of F5 and F6 (stomach meridian) on their affected sides (Table 1).

Subjective assessment: All patients were requested to report their numeric rating of 0–10 on the pain scale (Krebs et al 2007), with scale scores between 5 to 7 (Table 1) before Ryodoraku treatment.

Ryodoraku Treatment for AKP: Since the patients had similar backgrounds and medical histories, they received comparable Ryodoraku therapy that was a total of 6 treatments evenly distributed for 6 weeks. Each treatment lasted for 15 minutes in which 9 acupuncture needles (L-type needle, gauge 3, Seirin Corporation, Japan) were inserted 1.5 to 2 cm deep into the Hanno-Ryodo-points of $F_5$12, $F_5$13, $F_5$14 (equivalent to acupoints GB33, 32, 31) and six additional points adjacent to those three points (Figure 4). While the patients held the ground conductor, a direct current of 200 μA and 12 volts from the cathode conductor contacted each needle twice for 30 seconds each time to introduce the current to the lateral thigh using ES-160 electro-acupuncture device (ITO Co., Ltd., Japan). During the electrical stimulation, the needle was manually moved up and down several times as sparrow's beak maneuver.
The abovementioned objective and subjective assessments were repeated after Ryodoraku treatment.

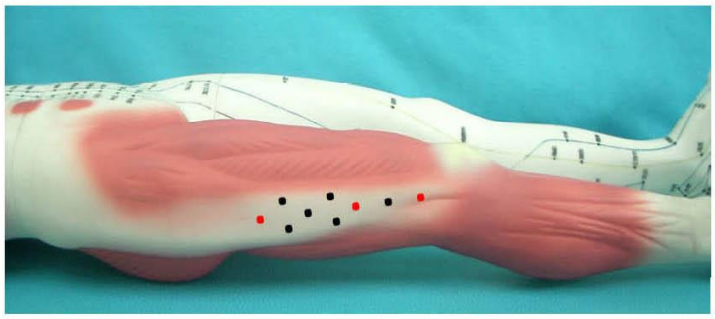
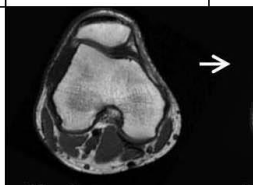
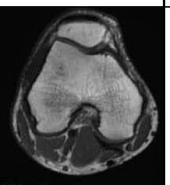
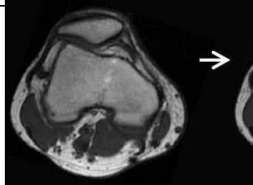
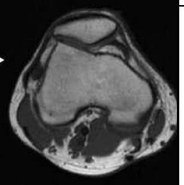
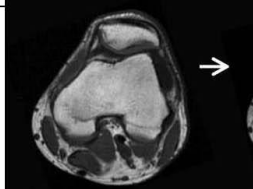
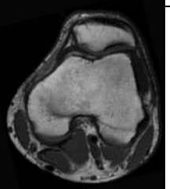


Figure 4: Acupuncture needle placements. Red dots = Hanno-Ryodo-points of $F_5$12, $F_5$13 and $F_5$14. Black dots = 6 additional placements on iliotibial band.

RESULTS

Table 1: The objective and subject assessments before and after 6 weeks of Ryodoraku treatment.

Patients	Pre - Rx MRI	Post - Rx MRI	Pre - Rx Ryodoraku	Post - Rx Ryodoraku	Pre - Rx pain scale	Post - Rx pain scale
Male, 29 yr, Right AKP	 LPL = 3mm	 LPL = 1mm	Deficient F5	Normal	5	0
Male, 31 yr Right AKP	 LPL = 5.5mm	 LPL = 3mm	Deficient F5	Normal	7	2
Male, 35 yr Left AKP	 LPL = 5.5mm	 LPL = 3.5mm	Deficient F5, F6	Deficient F6	6	1

CONCLUSION

The comparison between pre- and post-treatment MRI, Ryodoraku diagnosis and pain scale rating reflected the positive effects of the invasive direct current stimulation (Table 1). The therapeutic effects are likely produced by the direct current that caused local electrolysis on the iliotibial band where the needles were inserted (Yamada 2007). During the electrical stimulation, hydrolysis of water in the iliotibial band led to a production of sodium hydroxide that is of alkalis and chemically decomposed the fibrotic scar tissues (Abat et al 2014). As the stiffness of the iliotibial band decreased, in turn, the optimal

biomechanics of the patellofemoral joint was restored and the AKP reduced. In addition, the lowered muscle tension of the vastus lateralis may contribute to the improved patellofemoral joint congruency after treatment, but since no electromyography evaluation was done in the present study, such a possibility cannot be confirmed (Wong et al 2013).

The pre-treatment Ryodoraku measurements demonstrated the relations between the AKP with lateral patellar displacement and suppression of the F5 and F6 Ryodoraku lines; the post-treatment measurements also showed that the F5 had returned to normal. Thus it suggests that Ryodoraku measurement might be used as a supplemental method for AKP diagnosis. The improved Ryodoraku reading may indicate an enhanced blood flow of the lateral thigh where the iliotibial band is located and treated, but an objective evaluation such as infrared thermograph was not included in the present study (Skorupska et al 2014).

No treatment failures were encountered in this prospective non-controlled case series, which may be a result of patient selection whereby all patients had analogous knee pathology, gender and age. Since the pathology of AKP is multifaceted (Witvrouw et al 2014), the present findings may not be directly generalized to other AKP patients with different clinical backgrounds and medical histories.

References

1. Abat, F., Valles, S.L., Gelber, P.E., Polidori, F., Stitik, T.P., García-Herreros, S., Monllau, J.C., Sanchez-Ibánez, J.M. Molecular repair mechanisms using the Intratissue Percutaneous Electrolysis technique in patellar tendonitis [Article in Spanish]. *Journal of Orthopaedic Surgery and Traumatology*, 2014, 58(4), 201-205.
2. Draper, C.E., Besier, T.F., Gold, G.E., Fredericson, M., Fiene, A., Beaupre, G.S., Delp, S.L. Is cartilage thickness different in young subjects with and without patellofemoral pain? *Osteoarthritis Cartilage*, 2006, 14(9), 931-937.
3. Fairclough, J., Hayashi, K., Toumi, H., Lyons, K., Bydder, G., Phillips, N., Best, T.M., Benjamin, M. The functional anatomy of the iliotibial band during flexion and extension of the knee: implications for understanding iliotibial band syndrome. *Journal of Anatomy*, 2006, 208(3), 309-316.

4. Krebs, E.E., Carey, T.S., Weinberger, M. Accuracy of the pain numeric rating scale as a screening test in primary care. *Journal of General Internal Medicine*, 2007, 22(10), 1453–1458.
5. Nicolaas, L., Tigchelaar, S., Koëter, S. Patellofemoral evaluation with magnetic resonance imaging in 51 knees of asymptomatic subjects. *Knee Surgery, Sports Traumatology, Arthroscopy*, 2011, 19(10), 1735–1739.
6. Peffers, M. J., Thorpe, C. T., Collins, J. A., Eong, R., Wei, T. K. J., Screen, H. R. C., Clegg, P. D. Proteomic analysis reveals age-related changes in tendon matrix composition, with age- and injury-specific matrix fragmentation. *The Journal of Biological Chemistry*, 2014, *289*(37), 25867–25878.
7. Saita, H.S. Modern scientific medical acupuncture. *Journal of the American Dental Association*, 1973, 72(3), 47-58.
8. Skorupska, E., Rychlik, M., Pawelec, W., Bednarek, A., Samborski, W. Trigger point-related sympathetic nerve activity in chronic sciatic leg pain: a case study. *Acupuncture in Medicine*, 2014, 32(5), 418-422.
9. Souza, R.B., Powers, C.M. Trochlear groove spur in a patient with patellofemoral pain. *Journal of Orthopedic and Sports Physical Therapy*, 2008, 38(3), 158.
10. Witvrouw, E., Callaghan, M.J., Stefanik, J.J., Noehren, B., Bazett-Jones, D.M., Willson, J.D., Earl-Boehm, J.E., Davis, I.S., Powers, C.M., McConnell, J., Crossley, K.M. Patellofemoral pain: consensus statement from the 3rd International Patellofemoral Pain Research Retreat held in Vancouver, September 2013. *British Journal of Sports Medicine*, 2014, 48(6), 411-414.
11. Wong, Y.M., Straub, R.K., Powers, C.M. The VMO:VL activation ratio while squatting with hip adduction is influenced by the choice of recording electrode. *Journal of Electromyography and Kinesiology*, 2013, 23(2), 443-447.
12. Yamada, T. Acupuncture treatment by continuous application of 12V 200 μA direct current electricity [Article in Japanese]. *Journal of the Japanese Society of Ryodoraku Medicine*, 2007, 52(2), 53-55.

Correlation of RR and the distance of measurement average value from the lower limit position of the Ryodoraku Chart

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Objectives) The correlation between Low Frequency (LF), parameter of heart sympathetic nerve activity and parasympathetic nerve activity, High Frequency (HF), parameter of heart parasympathetic nerve activity, and LF/HF, parameter of heart autonomic nervous system activity, and the length of the average of all the measurement values on 24 Ryodoraku representative points on Ryodoraku Chart from the lowest frame line was statistically analyzed using EZR.

Method) Twenty one subjects (53.63±18.71 years old that are 6 males: 63±10.10 years old, and 15 females; 47.87±19.83) who consented orally for this study were measured Ryodoraku representative points with Neuro System Vision DS-603 (Tokyo Ryodoraku Institute) of each subject, and subsequently RR interval was measured for 2.5 minutes with sphygmograph in sitting position on the comfortable chair.

Discussion and Conclusion) The distance of the average of all Ryororaku representative point measurement values from the lowest frame of Ryodoraku Chart and RF/HF demonstrated R= 0.802, 95%, confidence interval 0.567-0.916, and P = 1.22e-05. LF showed R= 0.0607, 95% confidence interval -0.381-0.48, and P = 0.794. HF showed R = -0.367, 95%, confidence interval -0.689-0.077, and P = 0.102. 1/HF showed R = 0.211, 95%, confidence interval -0.243-0.589, and P = 0.359. The average of all Ryodoraku representative point values in the Ryodoraku Chart demonstrated a certain correlation with heart autonomic (sympathetic) nervous system activity.

Experimental Study on Successive Influence of Needling Stimulation to the Autonomic Nervous System measuring the Iris Diameter

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Poster 08

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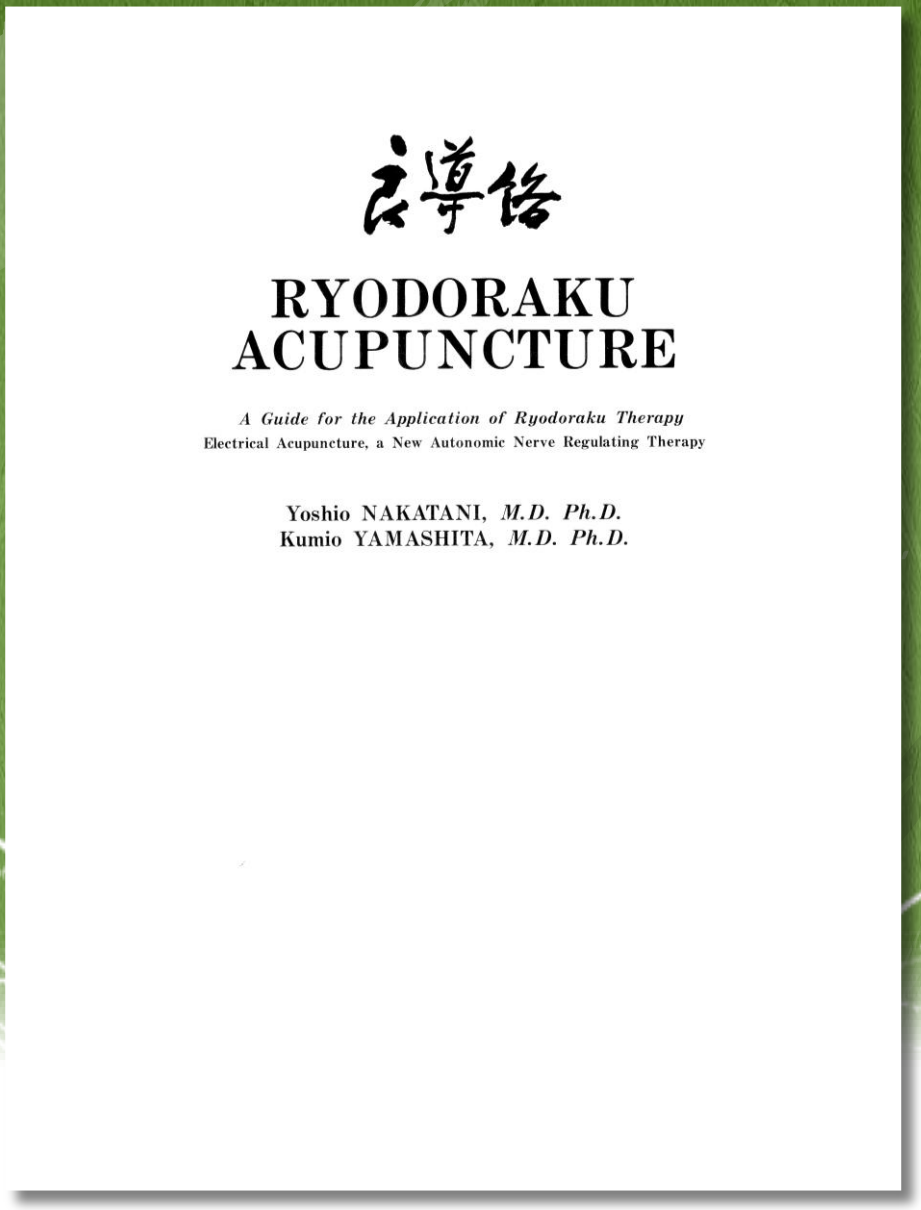
(Introduction) It is known that acupuncture needling influences autonomic nervous system.

(Subject and Methods) The pupil diameter reflects the variation in the activity of sympathetic nervous system under the constant illuminance. We tried to measure the needling influence to the pupil diameter on the left-side eye using Meditester VOG-L (CD8002) (Panasonic Electric Works Co., Ltd.) that is generally called Iriscorder. Left-side iris diameter was measured. Needle (0.17mm in diameter, 30mm length made by Taiho Medical Company) was inserted on the left F_4 59 (BL10 Tianzhu, 天柱) for 10 seconds using 1cm sparrow pecking technique in 1 Hz with 2.5 Hz negative mono-phasic rectangular electrical pulse (width is 100 micro second, 1.65v, 3.3mA$^{0\text{-}P}$ with 500Ω) using IC1107 (ITO) after the measurement for 60 seconds without needle stimulation. The measurement was continued for 180 seconds following to the needling with electrical stimulation.

(Discussion and Conclusion) The diameter of the left eye pupil demonstrated larger significantly during the needle stimulation comparing to the size before stimulation. It showed significantly smaller than the diameter before needle stimulation during the following 180 seconds. Significant difference was indicated among each diameter. It was strongly suggested that needling excites the sympathetic nervous system during the stimulation. However, sedation of the activity of the sympathetic nervous system or the parasympathetic nervous dominance occurs after the needle stimulation. This suggests that needling may constrict the vascular system for a while, but the following period vascular dilation may occur. Iriscorder may be a useful measurement device to study needling effect.



Appendix

Brief TEXT BOOK of Ryodoraku medical science by Yoshio NAKATANI MD PhD and Kumio YAMASHITA MD PhD

Ryodoraku means good (Ryo) electro-conductive (do) meridian (raku).
Thirty years ago, Dr. Nakatani checked the electro-permeability of the skin of a patient who had severe oedema due to chronic nephrosis.
Dr. Nakatani found some higher than normal electric permeable points on his back which were arranged like the classic kidney meridian. This was the beginning of Ryodoraku. These points were named " Ryodoten " (good electric permeable point) and the lines constructed by connecting these Ryodoten were called " Ryodoraku " by Prof. Sasagawa, instructor of Dr. Nakatani and Professor of the Physiological Department of the Kyoto University.
Ryodoraku does not always coincide with the classic meridians; however, it is very useful clinically and easily understood even for doctors who are not familiar with Eastern medicine. For example, the Ryodoraku chart is a clear device to determine the excitation and inhibition of all twelve meridians by measuring the electro-permeability on the measuring points on the patient's wrist and feet. Doctors can easily find the specific points on the patient's body where acupuncture may be done effectively by using the reactive electric permeable points (REPP) (high electric permeable points which are detected using 12 volts, 200 micro amperes D.C.). One needle is enough for each patient and the treating time is rather short, so this treatment is very convenient in a busy clinic. The effectiveness is usually augmented by stronger stimulation given electrically. This book is written by Dr. Nakatani, who was the first to discover Ryodoraku. It contains many illustrations and explanatory comments and introduces many interesting techniques based on his own wide experiences. There is also a Question and Answer section, the questions of which are those he received during his lecture trips in America and Europe and other foreign countries.
Doctors throughout the world will find this a very readable, worthwhile book.

* This small pamphlet is the guide for "RYODORAKU ACUPUNCTURE" (A guide for the application of Ryodoraku Therapy; electrical acupuncture, a new autonomic nerve regulating therapy) written by Yoshio NAKATANI, M.D., Ph.D. and Kumio YAMASHITA, M.D., Ph.D. We will introduce only outline of this book for you.

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Part One. INTRODUCTION

1. A Brief History of Acupuncture in Japan

It is generally believed that acupuncture was brought to Japan from China by Chi So. However, some Japanese historians believe this was done by Jo Fuku in 265 A. D. In 608 two Japanese monks, Enichi and Fukuin, studied acupuncture in China. In 984 the noted physician, Tanba Yasuyori, published Ishinpo, the oldest medical textbook in Japan, in which the practice of acupuncture is described. The Edo period (1603-1867) was the zenith for acupuncture in Japan however, and most of the present acupuncture technique was developed during this period. After the Meiji Restoration in 1868 the Japanese government adopted western medicine and the traditional Chinese medicine which is called Kampo, including acupuncture, was omitted from orthodox medical education. Nevertheless, acupuncture, moxibustion, oriental massage and other techniques are still practiced as folk medicine by many paramedical technicians and with the support of many patients.

It is interesting, however, that some of the medical doctors educated in western medicine maintained a deep interest in Kampo. Among them was Yoshio Nakatani who studied acupuncture electrophysically and discovered that most of the meridian points of the traditional acupuncture theory corresponded to points which have lower electrical resistance than the normal body surface. These meridian points are called "tsubo" in Japanese. Nakatani named these points "ryodoten" which means hyper-electroconductive points and the systematic range of "ryodoten" he called "ryodoraku". It is the consensus of many medical researchers today that the Ryodoraku corresponds to the meridian lines of the traditional acupuncture therapy.

Part Three. TOTAL RYODORAKU MEASUREMENT

1. Total Ryodoraku Measurement

In order to determine the extent of abnormalities of the Ryodoraku a specially designed Ryodoraku chart is used. The electric flow volume is measured at representative measuring points of each Ryodoraku, and the value of each is indicated on the chart by a short horizontal line using a red pencil. In this chart when the measured values are approximately on a single line across the chart, the patient may be considered to be in good health. However, when a discrepancy appears showing high and low values of a divergence of more than 1.4 cm, this would indicate abnormalities. If this 1.4 cm band across the chart is taken as the patient's normal physiological range, when one of the Ryodoraku shows values higher (excitation) or lower (inhibition) than the physiological range, in each case Ryodoraku characteristic symptoms are present. If this knowledge is utilized the operator can pin-point the symptoms without asking for the complaints of the patient. This is called "Fumonshin" (No-question diagnosis) of Ryodoraku. When the operator memorizes the symptoms referred to as the Ryodoraku syndromes, it becomes possible for the operator to know from such symptoms which Ryodoraku have abnormalities and by stimulating these points favorable results can be obtained.

The instrument used in Ryodoraku measurement is the measuring electrode ebonite. Surgical cotton immersed in 30% isopropyl alcohol is carefully tamped into it until it is full but no cotton should extend outside the ebonite ring. Then this moist electrode is fixed in position so that a 200 μA current will flow through it at 12 volts. During the measuring process the electrode is held so as to touch the body surface at a right angle at the representative measuring points. Measurement should be done lightly but with a uniform pressure and the values should be read at approximately 2 seconds or to the count of 3, as they are indicated by the needle of the neurometer. These values are marked on the specially designed Ryodoraku chart mentioned above. If a mistake is made a remeasurement can be done, not immediately, but after some time has elapsed.

The patient is instructed to lie on his back with hands turned palm upward and with legs extended and slightly apart.

THE RYODO-RAKU CHART

Name:	Date of birth: Age:	Occupation:
Disease(s):	Address: Phone:	

Average value	H_1		H_2		H_3		H_4		H_5		H_6		F_1		F_2		F_3		F_4		F_5		F_6		Average value
	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	
160	190		170		140		170		200		200		160		130		160		150		130		140		160
150	180		160		130		160		190		190		150		120		150		140		120		130		150
140	170		150		120		150		180		180		140		110		140		130		110		120		140
130	160		140		110		140		170		170		130		100		130		120		100		110		130
120	150		130		100		130		160		160		120		90		120		110		90		100		120
110	140		120		90		120		150		150		110		80		110		100		80		90		110
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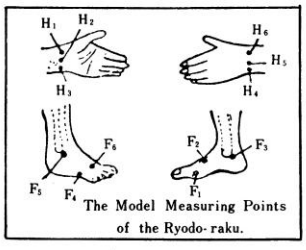
15	40		20		5		20		50		50		15				15		10				5		15
10	30		15				15		40		40		10				10		5						10
5	20		10				10		30		30		5				5								5

Date & time of Measurement:	Room temperature:	Boby temperature:	Date bisease(s) began



The Model Measuring Points of the Ryodo-raku.

Printed in Japan

Fig. 18.

Ryodoraku Syndromes

Ryodoraku	Excitation, where the electric flow is excessive	Inhibition, where the electric flow is minimal
H_1	stiff and painful shoulder muscles, rush of blood to the head, asthma, hot flashes, piles	cold feet or numbness, shortness of breath, coughing spells
H_2	stiff and painful shoulder muscles, brachial neuralgia, middle-age wrenched shoulders	palpitations, hot sensations of the palms
H_3	puffed sensation of the stomach, constipation	palpitations
H_4	headaches, abnormalities of the lower abdomen, joint pain	headaches, abnormalities of the lower abdomen
H_5	ringing in the ears, difficulty in hearing	tiredness or tendency to tire, the healthy glow disappears, body hair increases
H_6	stiff and painful shoulder muscles, toothache	stiff and painful shoulder muscles
F_1	general weakness of the stomach, knee joint pain	general weakness of the stomach, abnormalities of the knee joints, insomnia, glycosuria
F_2	insomnia, easily provoked (touchy), abnormalities in menstruation, lumbar pain	faintness or dizziness when standing up abruptly (orthostatic circulatory disorder)
F_3	fretful and irritable, anxious	loss of willingness to concentrate, general tiredness, coldness in hips and legs
F_4	stiff neck muscles, headaches, sciatic neuritis, lumbar pain	stiff and painful neck muscles, lumbar pain, dullness of the feet
F_5	headaches	abnormalities of the eyes, dizziness (Ménière's disease)
F_6	anomalies of the joints, middle-age wrenched shoulders, elbow neuralgia	stiff and painful shoulder muscles, distention of the stomach, bloating of face, yawning

Table 1.

A. Measurements of the Hands (H)

The narrowest point of the wrists, namely, the area surrounding the radius and the interior of the styloid process of the ulna, is measured first. As shown in Figure No. 20 the operator holds the patient's left hand, palm upward, with the thumb and index finger of his left hand in line with the patient's wrist. Then the operator holds the measuring electrode parallel to his index finger and brings it in contact with the patient's wrist first measuring H_1 (Lung Ryodoraku). The H_1 of the right hand is measured next in the same way and this continues alternating from the left hand to the right for the measurement of H_2 and H_3. Then the hand is turned palm downward and the same procedure is followed for the measurement of H_4, H_5, and H_6. Special care should be taken here when measuring H_5 (Lymph Ryodoraku) because the measuring point is not the center of the hand but along the patient's fourth (or ring) finger slightly off center toward the little finger as shown in the Figure No. 20.

Ryodoraku Representative Measuring Points

Representative Measuring Points on the hands

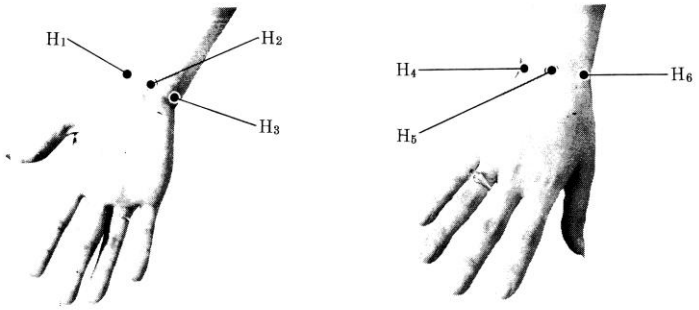


Fig. 19

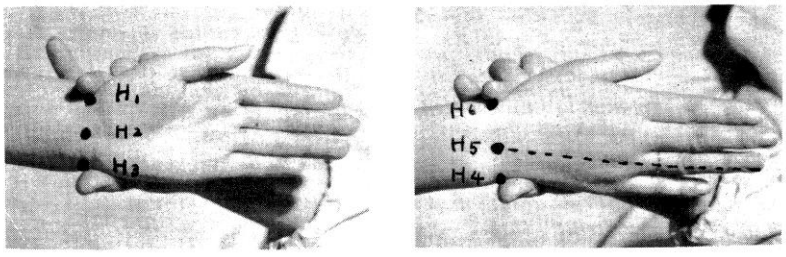


Fig. 20.

Representative Measuring Points on the feet

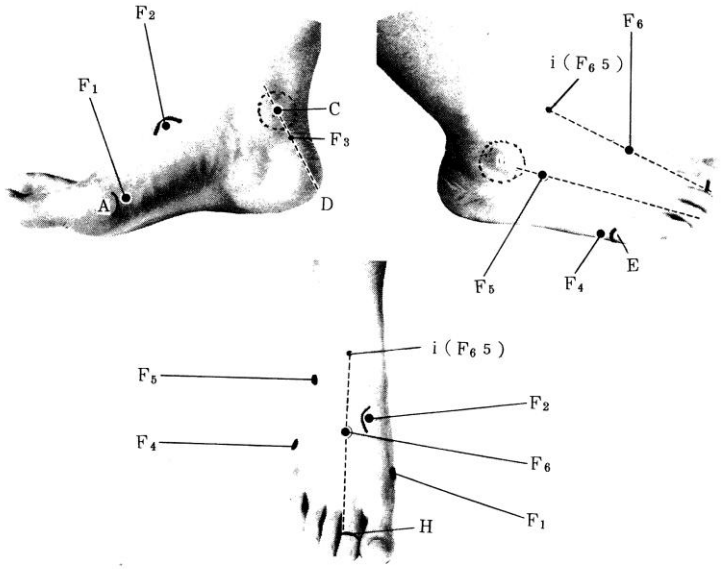


Fig. 21.

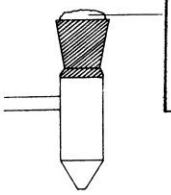
3. Measurements of the Feet (F)

As shown in Figure No. 21, the F_1 measuring point is the indentation of the back and inner side of the head of the first metatarsal bone. The measuring electrode is then moved to the highest point of the instep between the bones of the first and second toe. From this high point one finger width on the inner slope is an indentation which is the F_2 measuring point. F_3 is located on a line between the inner ankle bone and the point of the heel just below the inner ankle bone mound. F_4 is measured at the indentation at the back and outer side of the head of the fifth metatarsal bone. F_5 is measured on a line between the outer ankle bone and the fourth toe just below the outer ankle bone mound. F_6 is a pulsing point and can be located by drawing a line from the center point of the second and third toe to the indentation on the super extensor band between the long digital extensor muscle and the anterior tibial muscle. The half-way mark of this line is a pulsing point and F_6 is measured here.

The Method of Total Ryodoraku Measurement

A. Plug in the searching Electrode into one of the black sockets (negative), and the Grip Electrode into one of the red sockets. (positive) of the neurometer.

B. Tamp a piece of cotton moistened with 30% isopropyl alcohol or physiological saline solution into the hollow part (ebonite cup) of the Searching Electrode, sometimes called the Moist Electrode, as seen Figure No. 22.



The moist cotton swab should be packed firmly into the bottom of the ebonite cup and should not stick out more than 1 mm from the top.

* 70% ethanol (alcohol) is not recommended because of its low electro-conductivity.

Fig. 22.

C. Make a film contact between this Moist Electrode and the Grip Electrode. Turn on the switch (On-Off switch and electric current regulator) and turn this knob clockwise until a 200 micoampere current of 12 volts registers on the neurometer.

D. During the measuring process the searching electrode is held so as to touch the body surface at a right angle at the representative measuring points. Measurement should be done lightly but with a uniform pressure and the values should be read at approximately 2 seconds or to the count of 3, as they are indicated by the needle of the neurometer. These values are marked on the specially designed Ryodoraku chart shown in Figure No. 18.
If a mistake is made a remeasurement can be done, not immediately, but after some time has elapsed.
The patient is instructed to lie on his back with hands turned palm upward and with legs extended and slightly apart.

2. How to Locate REPP (Reactive Electro-permeable Points)

It is permissible to use metal electrodes to locate REPP when still unfamiliar with the technique. When a metal electrode is used almost no electric current flows in places other than REPP, but when an REPP is touched a sudden flow of current is registered on the neurometer. In this way an REPP, or point of treatment can be readily found, but the patient feels a mild electric shock. When a little skill is acquired use of the moist electrode is recommended. With a moist electrode the electric flow difference between an REPP and other areas is small, amounting to only 20 - 50 μA or thereabouts. Thus to clearly pinpoint a probable REPP the operator holds the moist electrode at right angles to the patient's body and while keeping the voltage at 12 volts, the switch for changeable resistance on the neurometer is turned on so that an electric current of approximately 150 μA flows through. When the electrode touches an REPP approximately 200 μA flows through clearly ascertaining the location of the REPP. Raising the voltage from 12 to 21 volts also helps to make the search easier. In other words by regulating the voltage and changeable resistance the locating of REPP 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 the electricity flows more readily in the area.
This could be confusing, so movements with the electrode should be made smoothly and uniformly. This requires considerable practice and skill.

There are three ways to search for REPP as shown in figure No. 24.

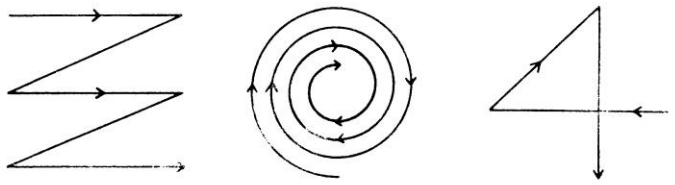
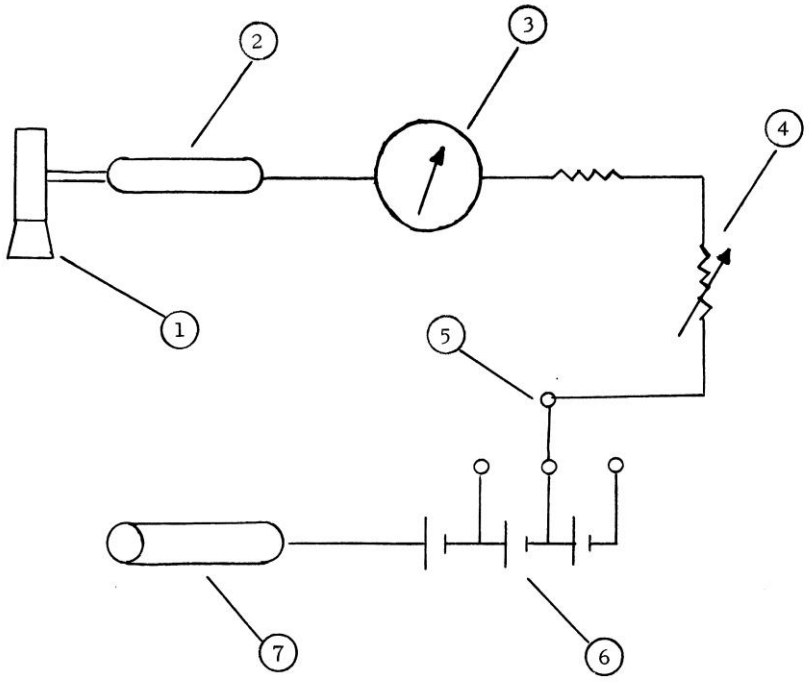


Fig. 24.

Several times it is missunderstood that high electric currency is revealed in REPP in any area.
However, on the upper parts of the body, for example, on the head and face, REPP show rather high electric currency and on the lower parts, it is lower. REPP show 150 microamperes on the head and 60 microamperes are of no significance in that area ; however, 60 microamperes are sometimes shown on REPP of the lower extremities.



The Block Diagram of the Equipment using Ryodoraku Therapy

1. Ebonite cup
2. Searching Electrode (negative)
3. Indicator (200 μA)
4. Variable resistor
5. Voltage Selecter (6V, 12V and 21V)
6. Batteries
7. Grip Electrode (positive)

Part Six. Examples of the Ryodoraku Treatment

1. Headaches

*1. F_5 46 (GB 4) Gan-en, F_5 45 (GB 5) Ken-ro
For migraine especially, insert the needle at a right angle. If not effective, insert from front to back along the skull or from top downward behind the chin bone.

*2. New point (Point at N. occipitalis major)
A point 2.5cm beside the Processus occipitalis. Insert the needle aiming at F_4 59 (BL 10) Ten-chū along the skull (both sides).

*3. New point (Point at N. occipitalis minor)
A point 5.0cm beside Proc. occipitalis. Insert the needle aiming at F_5 30 (GB 20) Fū-chi. (both sides)

*4. F_5 30 (GB 20) Fū-chi : Refer to No. 11.

*5. F_4 59 (BL 10) Ten-chū : Refer to No. 11.
Insert the needle beneath of the skull aiming at the nasal apex.

6. H_6 11 (LI 11) Kyoku-chi

7. H_4 3 (SI 3) Ko-kei

*8. HM 26 (GV 20) Hyaku-e
5 times pecking from front to back, horizontally on the bone. This point is useful for insomnia, hemorrhoidal pain, gastroptosis, prolapsus ani and neurosis. (Refer to No. 60.)

9. H_2 4 (HC 6) Nai-kan

10. H_1 5 (LU 7) Rek-ketsu

*11. F_6 9 (ST 36) Ashi-san-ri
As ST enters the temple and too much stimulation to the head dilates brain vessels, ST 36 is used to counteract these effects.

12. F_5 4 (GB 41) Ashi-rin-kyū

* indicate the most useful points and the other points may be used after noting the Ryodoraku chart.

6. Ménière's Disease

1. HM 26 (GV 20) Hyaku-e

2. $F_4$64 (BL 7) Tsū-ten

3. $F_4$63 (BL 8) Rak-kyaku

Ménière's disease patients sometimes have oedema on their head. Acupuncture from BL 7 and BL 8 in the direction of GV 20 respectively is very effective for the treatment of dizziness.

4. $H_5$23 (TH 20) Kaku-son

After ending the ear lobe to the front, the tip of the ear lobe which touches the parietal area is the real Kaku-son point. The needle may be inserted here to a depth of 2-3cm horizontally while rubbing on the scalp. Pushing on the needle and pecking at the point is an effective treatment for dizziness.

5. $H_5$30 (TH 21) Ji-mon

6. $H_5$20 (TH 17) Ei-fū

7. New point for dizziness

On the back of the ear lobe, the needle may be inserted downwards to a depth of 1-3cm vertically. This method may be especially effective for the treatment of dizziness.

8. H_5 5 (TH 5) Gai-kan

9. H_4 6 (SI 6) Yō-rō

10. H_5 3 (TH 3) Chū-shō

11. New point (also called Dai-ni-Tai-ton)

Located 3mm below the midpoint of the base of the 1st toenail.

7. Eye Diseases

1. F_5 36 (GB 16) Moku-sō

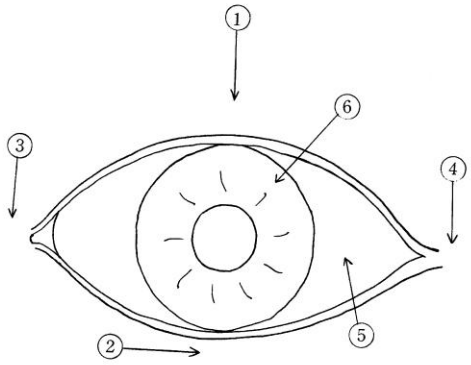
*2. Eye point A. Located on the line from the outer edge of the eyelid to the upper root of the ear lobe in front of the hairline.

Eye point B. Located 0.5cm in front of point A.

Points A and B for eye treatment. Needles may be inserted behind the zygomatic bone through these two points. As the patients who receive treatment for color blindness, false myopia, etc. are mostly children, the needles are left in these points without pecking. The effectiveness will be 2 times greater if pecking of over 15 times is done following needle insertion. However, doctors must be careful not to give too much stimulation as this has caused faintness among patients at the rate of 1:15.

3. F_5 52 (GB 12) Kan-kotsu
4. H_5 20 (TH 17) Ei-fū
5. F_4 59 (BL 10) Ten-chū
6. F_4 56 (BL 12) Fū-mon
7. H_4 9 (SI 9) Ken-tei
8. F_4 44 (BL 18) Kan-yu
   Relates to the whole eye.
9. F_4 40 (BL 20) Hi-yu
10. HM 6 (GV 4) Mei-mon
11. H_5 6 (TH 6) Shi-kō
12. H_6 5 (LI 5) Yō-kei
13. H_6 4 (LI 4) Gō-koku
14. VM 30 (GV 20) Hyaku-e
15. VM 16 (CV 17) Dan-chū
16. H_1 6 (LU 6) Kō-sai
17. H_3 3 (HT 7) Shin-mon
*18. F_2 9 (LV 8) Kyoku-sen
19. F_1 8 (SP 8) Chi-ki
*20. F_5 8 (GB 37) Kō-mei
    Located 5 finger-widths above the lateral malleolus. Treatment point for poor sight. Brightens vision.
21. F_3 7 (KI 7) Fuku-ryū
22. F_6 5 (ST 41) Kai-kei
23. F_5 3 (GB 42) Chi-go-e
    Effective for poor sight and color blindness.
24. F_5 2 (GB 43) Kyō-kei

* Indicate the most useful points, but other points may be used after noting the Ryodoraku chart or the diseased parts illustrated in the figure below.



1 upper eyelid ---F_6 (ST)
2 lower eyelid -- F_1 (SP)
3 inner edge --- H_3 (HT), F_4 (BL)
4 outer edge --- H_4 (SI)
5 conlunctiva -- H_1 (LU)
6 iris --------- F_2 (LV)
retina ------- F_3 (KI)
depth of the eye -F_4 (BL)

11. Shoulder Stiffness

1. $F_5$30 (GB 20) Fū-chi

   These points are in the most deeply concaved area located bilaterally on the neck.
   For neck stiffness, the needle may be inserted to a depth of 3cm pointing in the direction of the apex of the nose. For neck stiffness and eye diseases at the same time, the needle may be inserted 3-4cm aiming at the eyeball of the same side.

2. $F_4$59 (BL 10) Ten-chū

   For occipital pain, the needle may be inserted downward while rubbing the surface of the skull. The depth of insertion may be 2-3cm and 10 times pecking is sufficient.
   For occipital neck stiffness, the needle may be inserted into the stiff area from behind at right angles while rubbing the base of the skull, and aiming at the eyeball of the same side. The depth may be 2-3cm, and 10-20 times pecking is used.

3. REPP or painful points should be detected.

4. $H_6$11 (LI 11) Kyoku-chi

5. F_4 8 (BL 60) Kon-ron

For patients who complain of severe stiffness, the needles may be inserted 2-3cm into REPP or the stiff area where they feel the severest muscle tension. While the neck is bent, 30-50 peckings are effective for severe stiffness, and 5-10 times is sufficient for slight stiffness.

17. Joint Rheumatism

1. F_4 44 (BL 18) Kan-yu
2. F_4 33 (BL 47) Shi-shitsu
3. H_6 4 (LI 4) Gō-koku
4. VM 16 (CV 17) Dan-chū
5. VM 11 (CV 12) Chū-kan
6. VM 3 (CV 4) Kan-gen
7. F_6 9 (ST 36) Ashi-san-ri

F_4 33 (BL 47), Shi-shitsu, and H_6 4 (LI 4), Gō-koku, are pecked lightly 60 times. In the painful, red or swollen area, REPP about 1cm apart are treated by cluster needles. A 2-3cm deep insertion and 30-60 micro-amperes of stimulation are enough. Sometimes 100-200 REPP points are used.

When the blood sedimentation is high, a weaker stimulation is recommended. When the stimulation is too strong, temporary fever or pain occurs. However after these attacks, the disturbances usually subside. Joint rheumatism sometimes shows abnormalities of H_4 (SI). Stimulation at F_4 33 (BL 47) Shi-shitsu is thought to be important, because it induces steroid secretion. The needle must be inserted to a depth of 3-4cm slightly medially and pecked slowly. 15-30 peckings will be enough to induce the secretion of the steroid hormone. The hormone will be reduced in its secretion by too strong stimulation.

21. Hypertension

Idiopathic hypertension will be manifested in the excitation of the sympathetic nerves. To relieve that excitation, GRT should be used for the treatment of hypertension. In the lower region of the external auditory canal, point for hypertension (M19) and adrenal gland points on the ear lobes should be stimulated. (REPP on one side will be enough.) By leaving the needles in these points for 20 - 30 min., the blood pressure often falls about 20 - 30 mmHg. Treatment should be given 2 - 3 times a week.

As for the Ryodoraku chart, F_5 (GB) excitation with F_3 (KI) excitation, indicates.

1. H_5 23 (TH 20) Kaku-son
2. F_4 59 (BL 10) Ten-chū
3. H_5 17 (GB 21) Ken-sei
4. HM 17 (GV 12) Shin-chū
5. F_4 44 (BL 18) Kan-yu
6. F_4 40 (BL 20) Hi-yu
7. F_4 34 (BL 23) Jin-yu
8. F_4 23 (BL 32) Ji-ryō
9. H_3 1 (HT 9) Shō-shō — Suitable for micro-bleeding.
10. F_5 14 (GB 31) Fū-shi — Point where apex of middle finger touches the thigh when the arm is hanging down.
11. F_4 14 (BL 54) I-chū
12. HM 26 (GV 20) Hyaku-e
13. H_6 16 (LI 15) Ken-gū
14. VM 16 (CV 17) Dan-chū
15. VM 12 (CV 13) Jō-kan
16. F_6 26 (ST 21) Ryō-mon
17. VM 11 (CV 12) Chū-kan
18. VM 9 (CV 10) Ge-kan
19. F_6 22 (ST 25) Ten-sū
20. VM 5 (CV 6) Ki-kai
21. F_6 9 (ST 36) Ashi-san-ri
22. F_3 7 (KI 7) Fuku-ryū
23. F_3 1 (KI 1) Yū-sen

The Personal History of the Authors

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Was born August 19, 1923

Oct. 1946 - graduated from Iwate Medical College

1950 - discovered RYODORAKU

1952 - became a member of the Chemical Institute of Kyoto University

1954 - became a member of the Physiology Department of Kyoto University

1957 - received his Ph. D. degree from Kyoto University for the study of "Electro-permeability of the Skin and RYODORAKU"

1960 - founded Ryodoraku Autonomic Nervous System Society of Japan and published the "Japanese Journal of Ryodoraku Autonomic Nervous System"

Kumio YAMASHITA, M. D., Ph. D.

Was born March 1, 1920

May 1945 - graduated from Kumamoto Medical College

1946 - became a member of the Surgery Department of the First Tokyo National Hospital

1960 - opened the Anaesthesiology Department in the First Tokyo National Hospital

1967 - opened the Pain Clinic, using acupuncture (RYODORAKU), in the First Tokyo National Hospital

1975 - became head of the Anaesthesiology Department of the National Medical Center Hospital (formerly called the First Tokyo National Hospital)

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