

THE JOURNAL OF
KAMPO, ACUPUNCTURE AND INTEGRATIVE MEDICINE
Research on Theory, Practice and Integration

KAIM

**The Journal of
Kampo, Acupuncture and Integrative Medicine**

INTERNATIONAL INSTITUTE OF HEALTH AND HUMAN SERVICES,
BERKELEY

Volume 7, Number 2 · Summer 2012

Editorial

Transition of Indications for Kampo Medicine in Japan
Hiromichi Yasui

Japanese Acupuncture - Current Research

Japanese Traditional Medicine Text (4) – Orthopedic Disorders A
Daisuke Mine

Kampo Medicine - Current Research

Essentials of Pediatric Kampo Medicine (2)
Hideaki Yamaguchi

Clinical Report 1 (Acupuncture)

Oriental Medical Acupuncture and Moxibustion Treatment Based on Multifaceted Body Surface Observation
– A Case of Low Back Pain and Diarrhea –
Kazuma Ito

Clinical Report 2 (Kampo Medicine)

A Case of Continual Leg Cramps Successfully Treated with Shigyakusan
Satoshi Yamamoto, Keiko Ogawa-Ochiai and Tetsuo Akiba

Medical History in Japan

“Historical Significance of Standardization of Acupoint Locations”, the Second Japanese Acupoint Committee (6)
Makoto Mayanagi

LIFENCE®



College Logos

We believe it is necessary to create a new way of thinking for the total understanding of "Life, Survival, and Health".

We decided to coin the word "Lifence" to express this.

Lifence means the combination of life science and medicine as well as other disciplines such as health science, psychology, ethics, etc.

Our college logos symbolizes the above.

The ripple effect represents the ocean and the birth of life.

The rainbow colored sphere represents a safe environment and a barrier to protect us from negative influences.

The picture by Leonardo da Vinci represents a balanced body and health.

Completing our logos is a ring which represents the unity of space fulfilling the total meanings of lifence.

GOTO
College of Medical Arts & Sciences

**The Journal of
Kampo, Acupuncture and
Integrative Medicine
(KAIM)**

Research on Theory, Practice and Integration

EXECUTIVE EDITOR

Shuji Goto
Chairman, GOTO College of
Medical Arts & Sciences
Tokyo, Japan

EDITOR-IN-CHIEF

Donald Lauda, Ph.D.
Dean Emeritus, College of Health &
Human Services
California State University-Long Beach
CA, U.S.A.

ASSOCIATE EDITORS

Shuichi Katai
Ibaraki-ken, Japan
Hiromichi Yasui
Tokyo, Japan

EDITORIAL STAFF

Akihiro Souma
Hiromi Sasaki
Hiroshi Tsukayama
Hitoshi Yamashita
Junko Okubo
Kazunari Ozaki
Kengo Nakata
Masayuki Kashima
Naoya Ono
Noboru Mitsuhata
Sayaka Toda
Takao Namiki
Toshiaki Makino
Toshihiro Togo

PUBLISHER

Shuji Goto
International Institute of Health and
Human Services, Berkeley
2550 Shattuck Avenue, Berkeley
California 94704-2724, U.S.A.

**The Journal of
Kampo, Acupuncture and Integrative Medicine**

Volume 7, Number 2 • Summer 2012

TABLE OF CONTENTS

1 Editorial

Transition of Indications for Kampo Medicine in Japan

Hiromichi Yasui

3 Japanese Acupuncture - Current Research

Japanese Traditional Medicine Text (4) – Orthopedic Disorders A

Daisuke Mine

6 Kampo Medicine - Current Research

Essentials of Pediatric Kampo Medicines (2)

Hideaki Yamaguchi

13 Clinical Report 1 (Acupuncture)

*Oriental Medical Acupuncture and Moxibustion Treatment Based on Multifaceted
BodySurface Observation – A Case of Low Back Pain and Diarrhea –*

Kazuma Ito

21 Clinical Report 2 (Kampo Medicine)

A Case of Continual Leg Cramps Successfully Treated with Shigyakusan

Satoshi Yamamoto, Keiko Ogawa-Ochiai and Tetsuo Akiba

24 Medical History in Japan

*"Historical Significance of Standardization of Acupoint Locations", the Second Japanese
Acupoint Committee (6)*

Makoto Mayanagi

MISSION

To disseminate peer-reviewed information on the use of acupuncture and herbs, and integration with western medicine, based on research from an international perspective; thereby stimulating further research, application of documented therapeutic measures; and facilitating dialogue among health care practitioners worldwide.

◇小太郎漢方製薬株式会社

漢方 越 上
の
人
に
よ
る
小
太郎
製
薬

KOTARO PHARMACEUTICAL introduced in 1957 the world's first Kampo extract preparations on the market. Later, in 1967, six of our preparations could be covered in Japan for the first time by the health insurance and after 1976 more than 100 of our preparations were used in hospitals and clinics. Now it is half a century since we put our Kampo extract preparations on the market and believe, we made a major contribution to this industry. In the future we intend to continue working in accordance with our company motto: "Still better Kampo for still more people" and provide pharmaceutical products of still higher quality.



Origin of the company's name

The company was named "KOTARO" by its founder Taro Ueda with reference to his birth place. Close to the ancient city of Nara. Kotaro is the name of an enormous sheer cliff, 700 m wide and about 200 m high. Mr. Ueda felt an affection rising to the heavens for this cliff and thus made it the company's name.

KOTARO PHARMACEUTICAL CO., LTD.

5-23 Nakatsu 2-Chome, Kita-ku, Osaka 531-0071, JAPAN

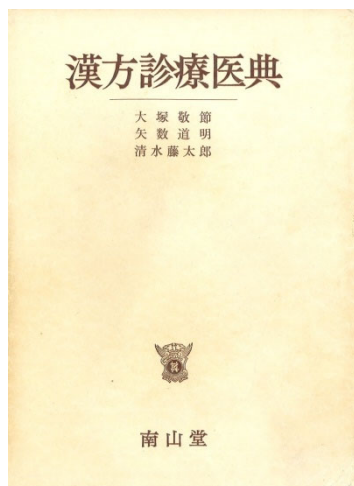
URL: <http://www.kotaro.co.jp>

Editorial

Transition of Indications for Kampo Medicine in Japan

Before Western medicine was introduced to Japan, any diseases were indicative of Kampo medicine. In 1869, following the Meiji Restoration, the new Japanese government adopted German medicine as well as the medical education and the system as a standard. Though remarkable progression had been made in some basic medicines such as pathology and bacteriology and development in public health, western therapeutic science around that time was still developing; a definitive way to treat diseases was not established. On the other hand, Kampo medicine had shown many therapeutic effects with application of appropriate prescription use for many diseases in its long history.

Japanese traditional medicine once declined was reviewed in the 1930's for its prominent therapeutic effects and for many literatures that a few excellent Kampo doctors left with favorable results of their treatment. These became a foundation of today's Kampo medicine. "Practice of Clinical Kampo medicine"(1941) was a representative book that these doctors wrote, which attracted an attention from medical community of the day. It was later revised upon request of the times and was published in 1969 under the name of "Norm of Kampo Medicine". This book was translated into English by Hong-yen Hsu from Taiwan and published in the United States in 1982 under the name "Natural Healing with Chinese Herbs".



Norm of Kampo medicine



Natural Healing with Chinese Herbs

Meanwhile, western medicine has developed significantly in the last half century and treatment methods have also advanced. With the development of modern Western medicine, a number of clinical indications of Kampo medicine have been steadily decreasing, and completely changed from 50 years ago.

Antimicrobial and antiviral agents took over and became a main street in the treatment of infectious diseases. The latest science created a large number of medications in all areas. A method that injects medication directly into the blood vessel was developed and advances in surgery have made it possible to treat areas that no one had been imagined before.

Under these circumstances, a number of clinical indications for Kampo medicine were greatly reduced, but instead, therapeutic areas indicative of Kampo medicine have clearly been highlighted. It is a new therapeutic field in which Western and Kampo medicines are integrated. In the future, Kampo medicine will acquire new indications in the new world.

Hikomichi Yasui

Japan Institute of TCM Research

Japanese Acupuncture - Current Research

Japanese Traditional Medicine Text (4) – Orthopedic Disorders A

Daisuke Mine

Physiotherapy Section,
Central Rehabilitation Service,
The University of Tokyo Hospital

A Shoulder Joint

1. Clinical Studies from Abroad

Concerning the efficacy of Acupuncture treatment for Conditions of the Shoulder Joint, until recently there have been many reports from abroad, mostly concerning the alleviation the pain associated with arthritis of the shoulder joint and injury of the rotator cuff. The earlier research from Moore (1976), was a randomized controlled trial treating chronic shoulder pain, they divided subjects into 2 groups, traditional Chinese acupuncture or a superficial placebo protocol, and investigated the effects of patient encouragement between the groups.

Although both groups reported less shoulder discomfort in the majority of cases, neither group reported improved range of motion.

Further, no difference in therapeutic result was seen either with or without therapeutic encouragement¹⁾. Since the late 1990s, an increase in the number of systematic reviews of acupuncture for shoulder pain have appeared as systematic reviews, especially with an increase of RCT papers. A representative report by Green (2005) will be discussed here (Table 4). Subjects were included if they met the evaluation criteria (older than 3 months of age, rheumatoid arthritis or radiating pain from the neck area, excluding fractures, etc.). The investigators analyzed results from 9 trials. Unfortunately, the small sample size, and wide variation in interventions and evaluation points diminished the clarity of the results. In conclusion, acupuncture was found to be effective in the short-term for shoulder pain and may be valid given standardized future interventions including appropriate evaluations. Recommendations for necessary future studies are proposed²⁾.

Table 4 Green et al. adopted a systematic review article

First Author / Year of Publication	Target (Subjects)	Intervention	Conclusion
Moore ME 1976	chronic shoulder pain 42 cases	*Traditional Chinese Medicine (with encouragement/ without encouragement) *Sham Treatment (with encouragement/ without encouragement)	Both groups reported improvement in their level of discomfort No significant difference between groups
Berry H 1980	shoulder - cuff lesion 60 cases	*Acupuncture needles *Steroid injection + Placebo Medication injection *Steroid Injection + Oral Medication *Ultrasonic Waves *Placebo Ultrasonic Waves + Placebo Medication Injection	All groups reported improvement No significant difference between groups
Lin ML 1994	frozen shoulder 150 cases	*Stellate ganglion block + supra-scapular nerve block *Electro-acupuncture *Electro-acupuncture + Nerve Block	Effectiveness of Electro-acupuncture + Nerve Block
Yuan 1995	periarthritis 98 cases	*Meridian Theory Based Acupoint Location *Acupoint Location based on Chinese Medical Etiology	Effectiveness of Acupoint Location based on Meridian Theory
Kleinhenz 1999	rotator cuff tendinitis 52 cases	*Acupuncture (needles) *Sham Acupuncture	Effectiveness of Acupuncture
Romoli M 2000	painful shoulder 24 cases	*Acupuncture+ Mobilization *Mobilization *Auricular Acupuncture + Mobilization	No significant difference between groups
Ceccheerelli F 2001	shoulder's myofascial pain 44 cases	*Shallow Needling (2mm) *Deep Needling (Muscle layer)	Pain was inhibited in both groups Deeper needling showed remarkable
Dyson TA 2001	chronic shoulder pain 20 cases	*Acupuncture *Trager psychophysical integration	Effective for/in both groups No significant difference between groups
Sun 2001	shoulder pain 35 cases	*Acupuncture + Exercise *Exercise	Efficacy of Acupuncture combined with Exercise

2. Prospectus and overview of Current Studies in Japan

In Japan, numerous reports are available on Shoulder joint inflammation and Frozen shoulder. Katayama et al., divided 12 subjects (thirteen shoulders) diagnosed with shoulder joint arthritis into 2 groups based on their limited range of motion. The Japan Orthopedic Society of Shoulder Joint Disease Treatment and Performance Criteria (JOA score) was used to evaluate pain, function and range of motion. Most notably, the extremely limited range of motion group reportedly experienced the greatest improvement in pain and both groups demonstrated improved results for all criteria³⁾. The treatment protocol involved treating acupuncture points and/or appropriate Trigger Points in the Deltoid, Biceps and Supraspinatus muscles; retention time was short with thrusting or embedded needles for longer retention. Hori et al. reported on the observed changes in shoulder pain and range of motion in patients following low frequency electro-acupuncture in 21 patients with Frozen Shoulder. Seventy-one percent of participants reported slight relief of their subjective symptoms, 29% of subjects with extreme pain also reported some relief⁴⁾. Also, Sakai et al. investigated 41 people with Shoulder joint inflammation. These subjects were divided into an admissible contracture group (21) and the no contracture group (20), respectively. Changes in pain scores and range of movement were re-evaluated following one month of weekly treatments. The purpose of this treatment was to reduce muscle tension and improve blood circulation in the rotator cuff, long head of the biceps and surrounding tendons. Depending on the presenting dysfunction, level of radiating pain and location of muscle tension, treatment might include needle retention and low frequency electro-acupuncture. Results suggest that, without respect to effectiveness for contracture, comparing patients presenting with spontaneous pain to those without spontaneous pain, those without spontaneous pain reported reduced pain following the treatments. In terms of effectiveness for changes in range of motion, the research confirmed that patients without significant contracture enjoyed much

greater increases in range of motion. Therefore the researchers suggested that, for best results, treatment should be instigated during the phase before spontaneous pain and contracture occur⁵⁾. There are many such reports demonstrating the effectiveness of acupuncture for shoulder joint pain and limited range of motion. However, there are several confounding points that must be addressed, 1) most of the available reports have been drawn from compilations of clinical reviews and clinical case study reports, there are no other treatment methods reported in the literature. 2) Because inflammation of the Shoulder Joint and Frozen shoulder are general terms that include a range of more specific conditions, the precise pathophysiological description of these complaints should be defined or systematized. 3) Although there is sufficient evidence pointing to the effectiveness of the treatment methods and evaluation techniques, the current conditions do not provide affirmative evidence that acupuncture and moxibustion are effective. In order to clear away these confounding factors, appropriately designed research studies allowing for collaboration with medical institutions and medical specialists are urgently needed to evaluate acupuncture treatments and research methods. Originally, acupuncture therapy was a treatment system corresponding to each patient's individual complaints, different patients with the same disease should receive unique treatment, and further it is well known that the skills of the individual practitioner greatly influence treatment efficacy. However, in an attempt to improve the level of acupuncture and moxibustion treatment efficacy in the future, other treatment methods should be compared and considered complementary and clarifying the effects of these therapies for shoulder arthritis should be a priority. Standardized evaluation criteria and treatment methods are required for specific disease stage and pathophysiology.

References

- 1) Moor ME, Berk SN: Acupuncture for chronic shoulder pain. An experimental study with attention to the role of placebo and hypnotic susceptibility. *Ann Intern Med* 84(4): 381-384, 1976
- 2) Green S, Buchbinder R, Hetrick SE: Acupuncture for shoulder pain. *Cochrane Database of Systematic Reviews* 2005, Issue 2
- 3) Kenji Katayama, Tatsuo Katsumi, Tatsumi Nakamura, et al.: Effect of acupuncture treatment for PERI-ARTHRITIS of the shoulder joint. *Eastern Medicine* 12 (3): 1-11, 1996
- 4) Noriko Hori, Hitoshi Yamashita, Hiroshi Tsukayama, et al: Effects of acupuncture for frozen shoulder – an integrated case study –. *Japan Society of Acupuncture* 46 (4): 340-344, 1996
- 5) Tomomi Sakai, Yasushi Mizude, KasuyaDaichi et al.: The effect of acupuncture treatment for PERI-ARTHRITIS of the shoulder joint. *Medical Journal of Day Temperature* 60 (4): 200-208, 1997.

Kampo Medicine - Current Research

Essentials of Pediatric Kampo Medicines (2)

Hideaki Yamaguchi

2. Kampo medicines with emotionally stabilizing functions

Among various crude drugs, even though there are certain differences in the strength of the effects, many drugs have emotionally stabilizing functions and if Kampo formulas contain several such crude drugs, they may correspondingly be expected to manifest such emotionally stabilizing actions. It is well-known that mind and body can only hardly be separated in children and any mental problem has a high tendency toward somatization. The relevant Kampo medicines act simultaneously on stabilizing the emotional state and improve the physical condition (for example, improve the gastrointestinal function) and are precisely for this reason well suited for children. Characteristics of these formulas include them being mild, not inducing drowsiness, dry mouth or gastrointestinal dysfunction or similar side effects. Therefore they are not suited for the relief of severe symptoms, but they can be considered to act by transforming both mind and body of the children little by little (providing relief). The use of psych mimetic drugs in pediatrics is currently more difficult than in adults. Kampo medicines therefore can probably considered to be easily applicable drugs for emotional and psychological problems.

Yokukansan, *kanbakutaisoto*, *saikokaryukotsuboreito* can be listed as representative tranquilizers that can be used in children.

Yokukansan (or *yokukansankahangechinpi*) is a formula that has been devised in ancient times for pediatric convulsive diseases and because of its sedative actions it is therefore indicated for conditions associated with irritability and easy excitation. *Kanbakutaisoto* and *saikokaryukotsuboreito* are thought to have mainly anti-anxiety action, but this may not always be taken literally. Based on experience is *kanbakutaisoto* the drug of first choice for pavor nocturnus

or episodic apnea and so is *yokukansan* for diaphragmatic tics.

In recent years the importance of developmental disorders in general practice has increased, in particular for pervasive developmental disorders or attention deficit hyperactivity disorder and the above mentioned three preparations are useful and reportedly have been found to be effective even in patients non-responsive to methylphenidate¹¹). Apart from the mentioned preparations *orengedokuto*, *kamikihito* etc. can also be used.

* *Kanbakutaisoto*: anti-anxiety activity, improving gastrointestinal function

* *Saikokaryukotsuboreito*: sedative, anti-anxiety activity, anti-inflammatory activity

* *Yokukansan*: strongly sedative, improving gastrointestinal function, improving blood circulation, the original text recommends simultaneous application to mother and child.

3. Kampo medicines with gastrointestinal function improving actions

In Kampo medicine gastrointestinal function are expressed as "spleen/stomach = digestive system". The meaning of this term is thought not to be restricted simply to the gastrointestinal function, but includes the more comprehensive concept of maintaining the functioning of the entire body. Naturally, both aspects are closely related, but for the sake of convenience I would like to discuss here the following 2 separately.

1) Treatment of diseases of the gastrointestinal tract in a general sense

Basically, gastrointestinal symptoms representing problems in pediatric clinical practice include vomiting, diarrhea, constipation and abdominal pain. These may be caused by a variety of pathologic conditions and while, needless to say, their differential diagnosis and treatment is very important, Kampo medicines may prove to be helpful in cases difficult to treat with Western medications.

It has long been known that oral administration of Goreisan is markedly effective during the early phase of acute viral gastroenteritis presenting mainly as vomiting. Yet, in recent years the use of dissolved extract preparations as enemas or suppositories has also been reported. Regarding these application forms Yoshida¹²⁾ and others have published many reports, each of which indicates, a quick inhibition of the vomiting and improvement of the general condition had been achieved.

Like in adults too *daikenchuto* is effective for chronic constipation¹³⁾. Although it is not a cathartic, it promotes peristalsis by improving blood flow in the intestinal tract¹⁴⁾.

Shokenchuto warms the body and relaxes smooth muscle tone and therefore is used to treat recurrent umbilical colics, while *rikkunshito* is used for gastroesophageal reflux and thus has been variously studied in the field of pediatrics¹⁵⁻¹⁶⁾.

(1) For Vomiting

*Vomiting in the early phase of acute gastroenteritis: Goreisan

*Gastroesophageal reflux (GER): *rikkunshito*
Slightly increasing peristalsis of the stomach results in an alleviation of the vomiting.

(2) For diarrhea

*In case of prolonged diarrhea following acute gastroenteritis: *ninjinto*, *shinbuto*

By warming the abdominal cavity the decreased functioning improves and *shinbuto* simultaneously improves also the water metabolism.

*Prescription for diarrhea in the absence of any organic causes: *keihito*

This formula is similar to the above mentioned but even milder.

(3) For constipation

*The below mentioned *keishikashakuyakuto* decreases smooth muscle tone, or used with added rhubarb having laxative action in the formula: *keishikashakuyakudaioto*

*A formula particularly for warming the intestinal tract and improving blood flow to increase peristalsis: *daikenchuto*.

(4) For abdominal pain

*Formula for warming the body and simultaneously relieving smooth muscle tone: *shokenchuto*, *keishikashakuyakuto*

Used for example for recurrent umbilical colics, irritable bowel syndrome.

2) Treatment of digestive organs and not directly related symptoms and diseases using the "Kampo medical concept of digestive function"

Maintaining the function of the body depends according to Kampo medical concepts on respiratory function (lung), digestive function (spleen and stomach) and the genetic life force (kidney). In developing children the digestive function is viewed as particularly important among these. In this case digestive function refers not simply to the functions of the digestive organs in the Western medical sense, but is presumed to mean the energy production system related to food ingestion in general. In Kampo medicine impairment of digestive functions for any reasons is thought to easily cause secondary generalized dysfunction or else functional disorders of various parts of the body. Thus, therapy has the meaning of rectifying the digestive functions as causative factors in order to bring about improvement of symptoms / diseases not directly related to the digestive organs. This is a typical Kampo concept and can be simplified in everyday language as 'harmonizing the gastrointestinal tract → recovering health → possibility that diseases may improve'. Representative preparations are *shokenchuto*, *rikkunshito* and *hochuekkito*. Preparations improving this kind of decreased body functions are called "Qi supplementing formula" and represent a characteristic of Kampo treatment.

Shokenchuto is the most frequently used formula and the preparation of first choice from infants to children in the first grades of elementary school,

where it is directed at generalized symptoms like cold sensitivity and lack of vitality as secondary manifestations of eating too little, recurrent abdominal pain, soft stools and similar gastrointestinal symptoms. *Rikkunshito* improves the general conditions like lack of appetite, abdominal distension as well as systemic symptoms like bowel mobility disorders or lassitude, while *hochuekkito* is indicated in cases of easy fatigability, heaviness of arms and legs etc. as well as marked generalized malaise. These two preparations are often used for comparatively older children, like higher grade elementary school students. Moreover, by "improving the digestive functions" they could possibly provide an effective supplementary therapy in cases, where the patients present with diseases other than those of the digestive organs, like for example allergic diseases, infections and similar conditions marked by derangement of immune functions. Within the scope of the author's research no substantial amounts of results could be found regarding this kind of Kampo medical application, but there is a close correlation with the already earlier mentioned concept of treating perianal abscesses with *juzendaihoto* and atopic dermatitis with *hochuekkito*¹⁷⁾ and the like.

**Shokenchuto*: Warms the body and relieves excessive tension of the intestinal tract. In cases of generalized symptoms like sensitivity to cold and lack of vitality as secondary manifestations of eating too little, recurrent abdominal pain, soft stools and similar gastrointestinal symptoms. It is the formula of first choice from infants to children in the lower grades of elementary school.

**Hochuekkito*: Slightly warms the body and improves a generalized hypotonic state. Used for patients who fatigue easily, wish to lie down and complain of generalized malaise including heaviness of arms and legs.

**Rikkunshito*: Slightly warms the body and improves in particular a hypotonic intestinal tract and the water metabolism. If lack of appetite,

abdominal distension and similar symptoms of stagnant peristalsis are observed, or in case of lassitude.

(Many Kampo medicines used for other purposes than improving digestive function too obviously or casually include crude drugs acting on decreased digestive functions and therefore are often used for secondary treatment regimens. I believe this confirms, that the importance of the digestive function had been recognized since ancient times.)

4. Kampo medicines with sedative actions

Some Kampo medicines have an affinity for the respiratory tract and some formulas have been used for the treatment of respiratory disorders. Naturally, in cases of respiratory failure or similar severe diseases various modern Western medical therapies are far more effective, but some Kampo medicines have unique antitussive properties and can be used as antitussives in children.

In pediatrics the first preparations that come to mind are *shoseiryuto*, *makyokansekito* and *bakumondoto*. In conjunction with their antitussive activity these preparations have different actions on the respiratory tract. *Shoseiryuto* inhibits airway secretions while also having a warming effect. *Makyokansekito* too inhibits airway secretions, but is considered to have more marked anti-inflammatory actions. Conversely, *bakumondoto* promotes airway secretions and thus has a moistening effect.

Accordingly, in patients presenting with copious thin white sputum, for example asthmatic bronchitis, *shoseiryuto* is used, but in patients with infective inflammation, presenting mainly as copious amounts of yellow sputum like for example in acute bronchitis or pneumonia, *makyokansekito* is considered, while in slightly dry conditions with little sputum but continuing cough *bakumondoto* is used as a rule. *Bakumondoto* reportedly has the same antitussive effect as dextromethorphan¹⁸⁾.

A trial is considered worthwhile, when the effects of the general antitussive drugs seems to be insufficient. Moreover, *saibokuto* is used for psychogenic cough.

**Makyokansekitō*: Anti-inflammatory, strong expectorant effect, in cases of copious yellow sputum.

**Shosaikoto*: Since it acts mainly as an expectorant, it is used for copious amounts of thin, white sputum, and frequently also for allergic rhinitis (in cases of large amounts of airway secretions the combination of *makyokansekitō* and *shosaikoto* enhances the antitussive effect).

**Bakumondoto*: Is suited for chronic, dry (no – little sputum) cough, since it moistens the airway and has relatively strong antitussive effects.

**Saibokuto*: Combined formulation composed of *shosaikoto* and *hangekobokuto*. In the past is was frequently used during the intermissions in cases of pediatric bronchial asthma¹⁹. It is also effective for psychogenic cough and tic-like cough.

Chronic paranasal sinusitis is in routine pediatric care often related to cough, but equally often no effective Western medical pharmaceutical therapies can be found. In these cases Kampo medicines can provide a useful therapeutic means. *Kakkontokasenkyoshini* and *shiniseihaito* can be listed as therapeutic agents for the treatment of chronic paranasal sinusitis. Theoretically, *shiniseihaito* is used for conditions with more marked inflammation and has reportedly been useful in cases where low-dose macrolide therapy had been ineffective²⁰.

When nasal obstruction is prominent in cases of paranasal sinusitis

**Kakkontokasenkyoshini*: Slightly warming, improving blood flow.

**Shiniseihaito*: Moistens and cools, helps discharge viscous nasal secretions (viscous nasal discharge, sputum; yellow).

5. Kampo medicines with growth and development supplementing functions

In Kampo medicine there are formulas to aid the growth and development of children. The world's oldest pediatric textbook published during the Sung dynasty: "Xiao er yao zheng zhi jue" (around 1107) lists *rokumigan* as a representative formula, that seems to have been used for inherently weak children. Although it is naturally not possible to change the congenital disposition, there can possibly be conditions associated with decreased activity, or where greater maturity can be expected to lead to a remission of symptoms. Also, combined use of Kampo medicines with actions improving digestive functions like *hochuekkito* and the like make the treatment even more effective.

* *Rokumigan*: In cases were delayed growth / development or decreased activity is observed, or else in cases of decreased activity due to chronic disease etc.

6. Kampo medicines with actions regulating water metabolism

Water comprises approximately 60% of the human body. Regulating functions related to any insufficiencies, excesses or imbalances are very important for the body. Sudden loss of water resulting in dehydration, renal or cardiac failure may be associated with severe edema and acute encephalopathy can cause cerebral edema etc. Needless to say, these conditions represent an important therapeutic topic in modern medicine. However, even not so severe conditions resulting in only minimal insufficiencies, excesses or uneven distributions are known to cause systemic or local symptoms. In pediatric primary care diseases associated with even minimal excesses or uneven distributions may cause headache, vertigo, lethargy, malaise, nausea, loss of appetite and similar symptoms are treated. The actions are not simply restricted to promotion of miction, but are considered to concentrate more on a balancing of the water distribution. In Kampo medicine the water

distribution has since ancient times been regarded as important and several corresponding Kampo medicines have been formulated. Also, even if water regulation is not the primary target of the used formulas, many of them contain water regulating crude drugs.

Representative preparations used in pediatrics are *goreisan*, *choreito*, *ryokeijutsukanto*, *hangebyakujutsutenmato* etc.

**Goreisan*: The most frequently used formula, for nausea during the early phase of gastroenteritis, headache related to atmospheric pressure etc.

**Choreito*: Simultaneously with promoting water excretion it cools the body or for inflammations of the lower urinary tract like cystitis; in combination with *orengedokuto* it is used for atopic dermatitis associated with much exudate.

**Chokeijutsukanto*: In cases of marked malaise, difficulties getting up in the morning and orthostatic regulation disorders etc.

**Hangebyakujutsutenmato*: For orthostatic regulation disorders²¹⁾ characterized by vertigo, loss of appetite etc.

Adverse reactions of Kampo medicines

1. Main side effects caused by the drug components

Care is required when combining 2-3 formulas, because many Kampo medicines contain licorice and therefore could cause pseudohyperaldosteronism. Naturally, their use in patients with hyperaldosteronism, myopathies or hypokalemia is contraindicated.

The main component of ephedra herb is ephedrine and thus could possibly cause palpitation, tachycardia or similar symptoms when used together with sympathomimetic drugs. Also, a mild state of excitation may cause in some patients insomnia and occasionally digestive symptoms like loss of appetite may also develop.

Shosaikoto is known to cause in adults interstitial pneumonia, but this reaction has almost not been reported in children. The most frequently reported adverse reaction in children is *saireito* induced

cystitis. Presumably this is an influence of components of the *shosaikoto* portion within *saireito*²²⁾, but has not been reported in relation to treatment with *shosaikoto* alone. Many extract preparations use lactose, so that they should not be used in cases of lactose intolerance²³⁾. There is no sizable amount of reports from the field of pediatrics dealing with allergies to crude drugs. In any case, Kampo medicines are generally considered to have few side effects^{22,23)}.

Table 3 Children's doses according von Harnack

Age conversion (when defining adult as 1)				
12 years	7 years 6 months	3 years	1 year	6 months
2/3	1/2	1/3	1/4	1/5

2. Could mistaking the indication be a factor possibly aggravating diseases?

Strictly speaking this does not refer to adverse reactions, but in case the indication has been mistaken, the possibility of an aggravation of the symptoms cannot be ruled out. An elementary distinction would be between heat and cold properties. Among Kampo medicines some warm and some cool the body, so that prolonged use of strongly cooling agents in patients sensitive to cold, or conversely agents warming the body in patients sensitive to heat could possibly result in adverse reactions and should therefore be kept in mind.

Application outside the recommended children's dose and indication

Since Kampo medicines are covered by the insurance 30 years have passed, but explanatory booklets about generally used Kampo medicines still include the remark, that "safety for children has not been established" (there is no experience). Thus Kampo medicines have like many Western medications necessary for children many pediatric pharmaceutical off-label problems. Currently, no solution seems to be in sight yet.

For the same reasons given above the children's doses for Kampo extract preparations too are still not listed in those explanatory booklets. Generally, they are calculated according to the von Harnack method based on body surface (Table 3), or by conversion of body weight, but occasionally the dose has to be increased depending on the pathologic condition, so that those values cannot be much more than rough estimates.

Moreover, it should be noted, that the daily dose of extract formulas may vary depending on the manufacturer and the type of Kampo medicine. Basically the drugs are administered in 3 fractions daily, but it is also possible to use 2 fractions. Principally, they are taken before meals, but there is not much differences, when they are taken after meals²⁴.

Instructions for taking Kampo medicines

Since many Kampo medicines have unique tastes and smells, they are in particular during early infancy difficult to administer. That is why treatment sometimes requires ingenious contrivances. Here I would like to briefly address some administration methods and refer the reader for further details to other references^{25,26}.

1) Increasing the motivation of children and family to take the drugs

First, I start by explaining to both the child(ren) and their guardians "what kind of Kampo medicines there are and what they are for" to help them understand the matter. In the late phase of infancy the children too are already capable of comprehending the outline of the involved concepts and after providing gentle explanations the children can often be unexpectedly compliant. Fundamentally, I am creating a motivation for taking the medicine.

2) Concrete application methods

Due to individual differences whether a patient can or cannot take the medicine at hand, the administration too has to be adjusted on a case by case basis. Generally the following methods are tried.

(1) Adjusting the way the medicine is taken

* Crush it and administer it as a liquid dissolved in warm water.

* For infants prepare a paste with warm water and apply this with your finger to the upper jar.

* After the late phase of infancy have the child take some cold water in the mouth, add the extract preparation and have it swallow it all at once.

* Wrap it in a wafer.

(2) Mix with something that is easy to swallow

* Yoghurt, milk, malt extract, juice, ice cream etc.

3) Change the path of administration

Regarding the application of Goreisan experiences with rectal application have accumulated (enemas, suppositories), but the above mentioned problems with off-label application are a reality.

Conclusions

In this article I tried to describe the application of Kampo extract preparations as the basics of pediatric Kampo as simple as possible, while at the same time trying to maintain the essential concepts of Kampo. This remains, however, very elementary and deepening one's understanding of other Kampo medicines, and further studies are required to ascertain whether these can be combined with other extract preparations or decoctions and thereby therapeutic effects possibly be further improved to treat still more complex diseases.

Kampo does not stand in opposition to Western medicine. By fully exploiting the characteristics of Kampo medicines within the framework of integrated medicine, complementing Western medicines, I believe we can broaden its application in pediatrics.

References

- 11) Koichiro Kawashima: Investigation about the usefulness of Kampo for pervasive developmental disorder; Journal of The Japan Society for Oriental Medicine 2007; 58: 175 (Abstracts)

- 12) Masaki Yoshida: Regarding the usefulness of *goreisan* suppositories for the treatment of vomiting during infancy, Information from the Medical and Pharmaceutical Society for WAKAN-YAKU; 1990; 7: 506-507
- 13) Toshiki Otani et al.: Effects of *daikenchuto* for pediatric constipational diseases, The Japanese Society of Pediatric Surgeons 2005; 37: 300-304
- 14) Toru Kawano: Searching for evidence for *daikenchuto*, Familiar Kampo treatment of pediatric diseases, 7, Tokyo Medical View 2007: 36-43
- 15) Minoru Yagi et al.: GER and Kampo — Investigations using EGG, The Japanese Society of Pediatric Surgeons 2005; 37: 284-290
- 16) Hiroaki Kuroda et al.: GER and Kampo — Investigations using RI, The Japanese Society of Pediatric Surgeons 2005; 37: 279-283
- 17) Yumi Kobayashi: Clinical evaluation of *hochuekkito* for the treatment of atopic dermatitis, Journal of The Japanese Pharmacological Society 2008; 132: 285-287
- 18) Yoshiharu Nonaka et al.: Experiences with the use of *bakumondoto* for persistent pediatric cough, Journal of the Japan Pediatric Oriental Medical Society 2004; 20: 15-21
- 19) Setsuko Ito et al.: Effects of *saibokuto* in the treatment of pediatric bronchial asthma, Basics and Clinic 1992; 26: 399-333-998
- 20) Mikikazu Yamagiwa: Kampo treatment for chronic infections in the field of otorhinolaryngology, Journal of the Japan Pediatric Oriental Medical Society 2006; 21: 31-35
- 21) Tadayoshi Abe et al.: Experiences with use of *hangebyakujutusutenmato* for the treatment of orthostatic dysregulation, The Japanese Society of Pediatric Surgeons 1984; 17: 93-104
- 22) Yoko Kimura et al.: Side effects and drug interactions of *shosaikoto*, Kampo and Latest Therapy 2002; 11: 341-346
- 23) Hidekazu Haruki: Latest pharmacotherapy and countermeasures against adverse reactions (Kampo medicines, crude drugs); Pediatrics 2008; 47: 829-835
- 24) Shinichi Tashiro: Correlation between the timing of taking Kampo medicines and meals, Pharmacy 2001; 52: 1138-1144
- 25) Shigeyuki Hirose: Kampo treatment manual for pediatric diseases, Tokyo: Modern Publishing Planning, 2006
- 26) Ranko Mori: Ideas related to the compliance, The Japanese Society of Pediatric Surgeons 2011: 43: 828-831

Clinical Report 1 (Acupuncture)

*Oriental Medical Acupuncture and Moxibustion Treatment
Based on Multifaceted Body Surface Observation
- A Case of Low Back Pain and Diarrhea -*

Kazuma Ito
Kyoto University Graduate School of
Human and Environmental Studies,
Kyoto University
Furokaku, Acupuncture and Moxibustion Clinic

I. Introduction

In modern Japan acupuncture and moxibustion treatment employs various forms of examinations, therapeutic theories and techniques¹⁾. These forms of acupuncture and moxibustion treatment currently practiced in Japan are defined in the body of this text as acupuncture and moxibustion²⁾. Regarding the characteristics of Japanese acupuncture and moxibustion the extensive amount of information obtained through touching and observing the body surface has been described many times before³⁻¹²⁾. Touching the body surface is not restricted to pulse diagnosis, but includes the palpation of the meridians according to Oriental medical concepts as well as the palpation of skin, muscles, tendons, bones etc. according to Western medical concepts. These techniques play an important role in the assessment of pathologies based on these findings and the evaluation of therapeutic results.

In the present report I made multifaceted observations based on the conduction of the four examination techniques, in particular palpation, in a case with low back pain and diarrhea. And I believe, the Oriental medical treatment was effective. Additionally I would like to make some observations regarding the characteristics of Japanese acupuncture and moxibustion.

Moreover, the term body surface observation used in this text is defined as the Oriental medical examination techniques observation, listening, smelling and palpation. Observation, listening, smelling and palpation are considered to represent an "observation of phenomena manifesting on the

body surface". Thus, "body surface findings" is defined as findings obtained through observation of the body surface. "Healthy qi" is defined as a generic term for original vital energy (vital energy, primordial energy), ancestral qi, nutrient qi, protective qi, yin qi and yang qi.

II. Case

Age: 35 years; male, first examination in December of 20XX.

Chief complaint: #1 pain from the right hip to the right inguinal region; #2 diarrhea (watery)

[Examination details]

[Anamnesis (medical interview)]

[Present illness]

#1 pain from the right hip to the right inguinal region

Junior high school period: He practiced basketball and started to experience pain in the right lumbar region from that time on.

In April 20XX: Started hang a heavy bag over his right shoulder. From that time on the patient started to experience the pain in the right lumbar region.

November of the same year: Started to strongly feel dull pain in the right lumbar region (because he carried luggage on the right side).

Currently:

Type and severity of the pain is the same as it was in November. The pain extends from the right lumbar region to the right inguinal region. As long as he is working, it does not bother him, but during rests, the pain starts to bother him. When he is exhausted or it is cold, the patient experiences numbness down into the right leg.

Relieving factors: taking a bath; warming; extending the hip.

Aggravating factors: hanging luggage over the right shoulder; upon rising in the morning.

#2 Diarrhea (watery stool)

4-5 days ago: He attended a drinking party but drank only iced tea. Later, diarrhea developed.

Frequency was 4-5 times per day.

Currently:

The watery stool continues. Frequency is 4-5 times per day; there is almost no smell. After its onset the low back pain developed almost daily in the morning after which he then passed loose stools. After the onset of the diarrhea the low back pain was neither relieved nor aggravated. After a bowel movement in the morning there is no feeling of residual stools, but otherwise there is a feeling of residual stools following bowel movements. The patient experiences a mild degree of fatigue after bowel movements.

- Normal stool condition: 1-2 times/day; always somewhat soft (slipping out stools).

[Past history]

March 20XX-1: Pancreas cancer; underwent surgery; resection of pancreas body, head and spleen; surgical removal of aortic lymph nodes.

August of the same year: liver metastases were discovered.

October of the same year: Initiation of chemotherapy, because the metastatic lesions had grown. Therapy consisted of daily administration of TS-1. Gemzar administration once/week. After the chemotherapy loss of appetite and diarrhea developed.

By July 20XX: loss of appetite and diarrhea did not develop any more.

Currently:

TS-1 is used for 2 weeks followed by one week rest. Gemzar is no longer administered.

[Family history]

The father had hypertension. Currently the patient lives with his father and mother in a 3-person household.

[Social history]

Between the age of 22 and 31 the patient was a company employee (salesperson).

Currently: attending vocational school.

[Personal history]

Alcohol consumption: has not been drinking.

Smoking: Had been smoking until the discovery of the pancreas cancer (20 years).

Twenty cigarettes/day.

[Present status]

- Height: 175 cm. Weight: 68 kg.

- Diet: Has appetite; eats three meals a day; timing of meals: breakfast 6:40~7:00, lunch after 12:00; dinner 20:00~21:00 (or 22:00). Approximately one month ago the patient started to crave cake or similar sweet foods and eats them. He did not do that before.

- Micturition: 7-8 times/day; sensation of incomplete emptying.

- Bowel movements: Normal condition is 1-2 times/day; always somewhat soft (slipping out stools).

- Sleep: Goes to bed around midnight or half past midnight; rises at 6:30; no nocturia; almost does not dream; stays for a while in bed after awakening in the morning.

[Physical examination]

- MMT (manual muscle testing):

extensor hallucis power: right = 5, left = 5

flexor hallucis power: right = 5, left = 5

- Sensory test of legs: the right 5th digit is a little numb.

- SLR (straight leg raising test): negative

- FNS (femoral nerve stretch test): negative

- Thomas test: negative

[Oriental medical findings]

- Tongue diagnosis

Tongue surface: dark pink tongue; there is darkened color, slightly soft consistency (lifeless swelling), no fissures or no dental indentations, somewhat marked moisture, no ecchymosis or petechiae, white coat.

Tongue underside: dark faintly red – red color; there is darkened color; markedly engorged sublingual veins.

- Meridian diagnosis*):

Listed here in the order of the severity of deficiency of both channels and collateral channels¹³⁾ (sweating → surface weakness → dimpling, coolness).

Note)

Meridian diagnosis refers to a diagnostic method, where careful palpation of the skin over both channels and collateral channels from the very superficial down to the deep layers and thus allows to assess a variety of conditions (example: sweating, weakness, dimpling, tension, induration, bulging, coolness, heat etc.).

(1) Tai yang bladder meridian of the foot ... weakness and coolness (right > left). (← this indicates left and right as viewed from the therapist; same applies below.

(2) Lesser yin kidney meridian of the foot ... weakness and coolness (right > left).

(3) Greater yin spleen meridian of the foot ... coolness (right \geq left).

(4) Greater yin lung meridian of the hand ... sweating and weakness (right \geq left).

○ Abdominal diagnosis (Figure 1):

hypochondrial region ... tension (right > left); flanks ... tension (right > left).

paraumbilical region ... tension (right > left);

hypogastric region ... weakness and coolness.

○ Back diagnosis (Figure 2):

Left and right BL12 (Fengmen), left and right BL13 (Feishu) ... weak; left and right BL15 ... tension (left > right).

Left and right BL17 (Geshu) ... weak surface, subcutaneous tension. Tension in the region of the upper back in general is stronger on the left side.

Left and right BL18 (Ganshu), left and right BL19 (Danshu), left and right BL20 (Pishu), left and right BL21 (Weishu), left and right BL22 (Sanjiaoshu), left and right BL23 (Henshu), left and right BL24 (Qihaihu), left and right BL25 (Dachangshu) ... weak surface, subcutaneous tension.

The lumbar region of the back in general shows a weaker surface on the right than on the left, while subcutaneously there is strong viscous tension.

○ Condition of the toes: pain in the left and right fifth digit, difficulties moving the toes.

○ Pulse diagnosis:

Inch pulse (cun mai) ... the width from the skin surface to the radial bone (below called pulse width) extends from the floating to the deep position.

The shape of the pulse is distinct, albeit somewhat soft.

Bar pulse (guan mai) ... the pulse width extends from the floating to the deep position. The pulse on the right side is a little hard.

Cubit pulse (chi mai) ... the pulse width extends from the middle to the deep position. The pulse lacks a little strength, but in the deep position has viscous properties. This is particularly marked on the right side.

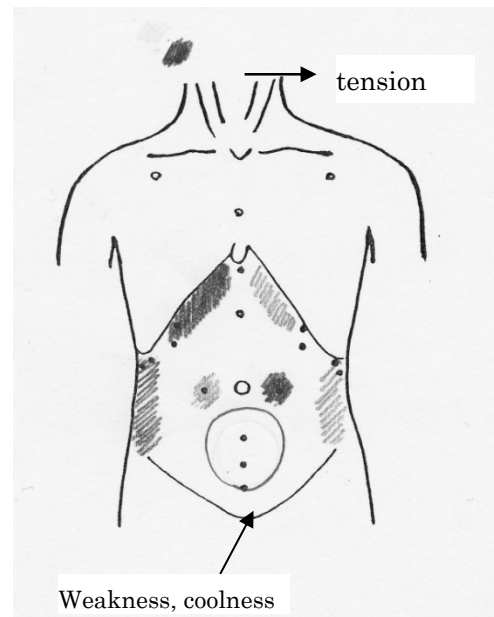


Figure 1 Abdominal diagnosis

(The shaded portion indicates tension; increasingly darker slanted lines indicate increasingly higher tension)

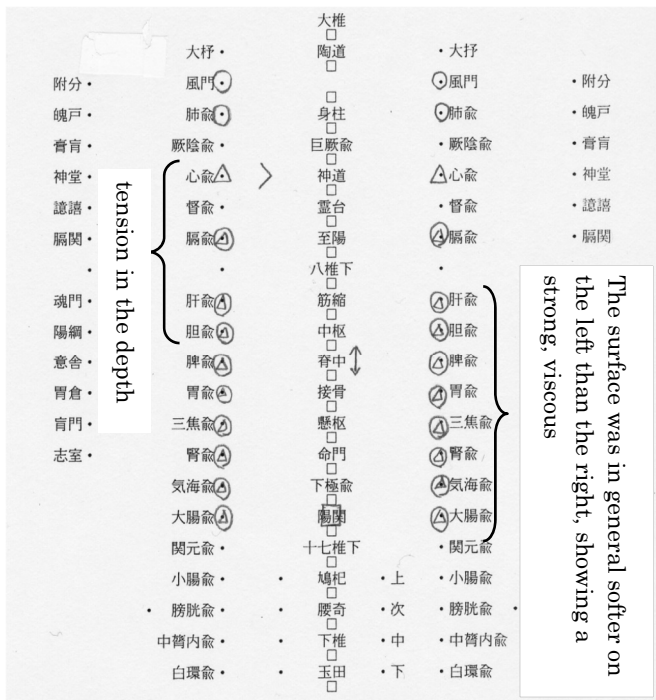


Figure 2 Back diagnosis

△: tension ○: weakness □: tenderness
 ◇: widened spaces between the spinous processes

[Assessment of the pathophysiology]

[Modern western medical assessment of the pathophysiology]

#1 Suspicion of myofascial low back pain (problems of the iliocostal, longissimus, lumbar quadrante muscles as well as the oblique and transverse muscles of the abdomen are conceivable)

Suspicion of some anomaly of the first sacral vertebra (however, a herniated intervertebral disc is based on the findings of various physical examinations unlikely)

#2 The acute diarrhea raises suspicions of a noninfectious diarrhea

[Oriental medical assessment of the pathophysiology]

#1 Kidney deficiency (mild form of kidney yang deficiency centering on a kidney qi deficiency), qi stagnation in the greater yang bladder meridian of the foot

#2 Kidney deficiency (kidney qi and kidney yang deficiency), spleen deficiency (mainly spleen qi

deficiency), <the diarrhea is considered mainly be due to kidney deficiency>

[Pattern identification]

First the individual patterns are indicated and then the details of the pattern identification shown.

[Eight-principle pattern identification]

Exterior and interior: exterior pattern (floating pulse, neck stiffness, chills) is not observed. Therefore this is an interior pattern.

Concrete details will be verified through the qi, blood and body fluid pattern identification, yin-yang pattern identification and organs/viscera and meridians/channel pattern identification.

Cold and heat: cold pattern. Concrete details will be verified through the qi, blood and body fluid pattern identification and yin-yang pattern identification.

Deficiency and excess: complex deficiency and excess pattern; the large number of dental impressions found during tongue diagnosis verify a qi and yang deficiency.

Other concrete details will be verified through the qi, blood and body fluid pattern identification, yin-yang pattern identification and organs/viscera and meridians/channel pattern identification.

[Qi, blood and body fluid pattern identification]

Qi stagnation: #1 during work alleviation and development of discomfort during rest.

Extension of the lower back is a relieving factor for #1.

Condition found through abdominal diagnosis (tension of hypochondrial regions and flanks).

Qi deficiency: verified through organs/viscera and meridians/channel pattern identification.

Yang deficiency: Bathing and warming (note that this phenomenon also appears in cases of qi stagnation) is a relieving factor for #1.

#2 Watery stools (kidney yang deficiency symptom). #2 The stools have almost no smell.

#2 Prior to the onset of the diarrhea the patient ingested large amounts of cold drinks.

[Organs/viscera and meridians/channel pattern identification]

Kidney:

#1 Low back pain since junior high school (kidney qi deficiency)

#1 Condition of the low back (kidney (qi, yang) deficiency that affected the tai yang bladder meridian of the foot).

#2 Diarrhea early in the morning (wu geng xie: kidney yang deficiency condition).

#2 Fatigue after bowel movements (kidney (qi, yang) deficiency condition).

Anamnesis showed that the patient had undergone surgery (injury of the congenital qi).

Abdominal diagnosis showed weakness and coolness of the abdomen.

Back diagnosis showed surface findings at the left and right BL23, BL24, BL25 and BL22.

Pulse diagnosis showed intermediate chi pulse.

© Both kidney qi and kidney yang deficiency are conceivable.

Spleen:

#2 Occurrence of diarrhea (spleen (qi, yang) deficiency condition).

#2 Bowel movement induced fatigue (spleen (qi, yang) deficiency condition).

Normal stool condition (tends to be soft).

Began to crave sweets about one month ago (sweet is one of the five tastes associated with the spleen).

Development of pancreas cancer (presumably there has been a problem with the middle energizer).

Upon initiation of the chemotherapy the patient lost his appetite and developed diarrhea (spleen (qi, yang) deficiency condition).

The back diagnosis revealed body surface findings at the left and right BL20, BL21 and BL22.

Pulse diagnosis showed somewhat hard properties of the right guan pulse.

© A spleen yang deficiency is conceivable as a problem with the spleen and because of the absence coolness as a body surface finding, this was considered mainly due to spleen qi deficiency.

Tai yang bladder meridian of the foot

#1 Manifestation of lumbar symptoms (note the course of the tai yang bladder meridian of the foot).

Meridian diagnosis showed some weakness in the course of the tai yang bladder meridian of the foot, surface findings of coolness.

Lesser yin kidney meridian of the foot:

Meridian diagnosis showed weakness in the course of the lesser yin kidney meridian of the foot, surface findings of coolness.

Greater yin spleen meridian of the foot:

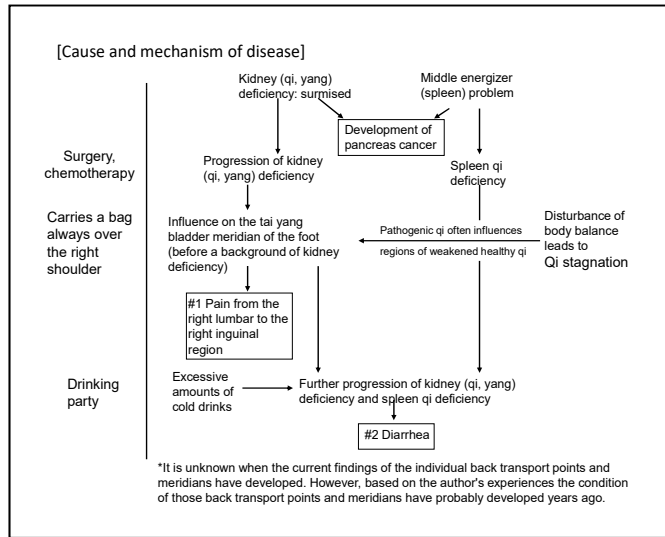
Meridian diagnosis showed surface coolness in the course of the lesser yin kidney meridian of the foot.

[Cause and mechanism of disease] (Figure 3)

Presumably the kidney qi and yang deficiency condition had been present from before. At the same time the presence of problems with the middle energizer, in particular the spleen, was also surmised. They probably led to the development of the pancreatic cancer. The surgery for the pancreatic cancer and the chemotherapy caused a progression, leading to an aggravation of the kidney qi and yang deficiency and the spleen qi deficiency. From April 20XX hanging a heavy bag over the right shoulder presumably disturbed the body balance and impeded the flow of qi, leading to a qi stagnation. Pathogenic qi caused by qi stagnation often influences sites of weakened healthy qi. In this patient the qi stagnation is considered to have influenced the tai yang bladder meridian of the foot. Before a background of a weakened tai yang bladder meridian of the foot there is a kidney deficiency. I assume, the chief complaint #1 has developed for that reason. Further, drinking large amounts of cold drinks during a drinking party led to an aggravation of the kidney (qi and yang) deficiency and spleen deficiency and I assumed, this led to the development of the chief complaint #2.

The author places great importance on body surface findings from the back transport points and the meridians in order to learn more about the past

condition of the patient's body. In this patient the time of development of the current findings of the individual back transport points and meridians is unknown. However, based on the author's experiences of the condition of those back transport points and meridians have probably developed years



ago.

Figure 3

[Cause and mechanism of disease]

[Treatment plan and objective]

The treatment plan was to treat the right-sided low back pain and diarrhea. Treatment was carried out mainly according to Chinese medical and Oriental medical objectives. Concrete objectives were tonification of kidney and spleen (tonification of both spleen and kidney), while promoting qi flow (regulating qi).

Treatment details

Acupuncture was the chosen treatment technique. First the problems of the organs were addressed.

(1) Right BL20; 0.14/40 mm (Seirin made stainless steel needle)

(1) Right BL23; 0.14/40 mm (Seirin made stainless steel needle)

The needles were retained in both points for 8 minutes. While retaining the needles, they were also

manipulated, applying the thrusting and lifting and the twirling techniques.

After treating (1) the body was in the following state. Tongue diagnosis: appearance of some brightness as compared to before treatment of (1).

Pulse diagnosis: improvement of the (1) pretreatment intermediate guan pulse position, but the pulse was still hard and viscous in its deep position.

Right low back pain: some pain remained. VAS: (pretreatment) 10→2 or 3 (after treatment of (1)).

Since problems at the right inch pulse still remained, I next used a meridian approach.

(2) Right KI3; 0.14/40 mm (Seirin made stainless steel needle); applied twirling at the skin surface (no insertion under the skin) for 3 minutes.

After treatment of (2) the body was in the following state.

Tongue diagnosis: appearance of some brightness as compared to before treatment of (1).

Pulse diagnosis: pulse strength and width increased in the guan pulse position. The hardness of the pulse had improved in particular on the right side in the deep position.

Abdominal diagnosis: chilling of the hypogastric region decreased and it became slightly warmer. The weakness also become a little firmer.

III. Results

[Effects immediately afterward] (after treatment (2))

#1 Right low back pain: patient almost did not feel pain. VAS: (pretreatment) 10→1 or 2.

Right inguinal region: the patient did not feel any pain but still experiences some discomfort. VAS: (pretreatment) 10→3 or 4.

#2 Diarrhea: currently under follow-up.

#1 The symptom remains, but since the surface findings of tongue, pulse and abdominal diagnosis showed improvements, the treatment was cut off at this time.

[Health preservational instructions]

Refrain from cold drinks and food. Return for a reexamination in 3-4 days.

[Reexamination report]

Three days later the patient contacted me.

#1 On the day following the acupuncture treatment the discomfort in the right inguinal region had been alleviated. The right-sided low back pain had improved to a degree, where it did not bother the patient any longer.

#2 Diarrhea had stopped immediately after the acupuncture treatment. The stools had return to their usual consistency. Based on this condition the treatment was terminated.

One month later I had a chance to meet the patient. When I inquired about the above described symptoms, he replied that neither the right-sided low back pain nor the diarrhea had recurred since.

IV. Discussion

For this patient I performed a multifaceted body surface observational examination centering on anamnesis and palpation. This information was then analyzed according to Chinese medical and Oriental medical concepts to assess the pathophysiology. For the treatment I chose only few acupoints. As shown in this case is a treatment with few acupoints one effective method, when the therapist is aware of the therapeutic effects of the individual acupoints and their compatibility with examination results and diagnosis. It is also a good method to comprehend the Oriental medical body and illness concepts.

The evaluation of the therapeutic effects was made in this case based on changes in body surface findings in the supine position rather than observations of changes in the symptoms. The author thinks, these changes in body surface findings reflect alternations in symptoms and disease status (improvements, aggravations, no changes). This conceivably enables the practitioner

to independently assess treatment induced changes in symptoms and conditions.

For this patient I performed multifaceted body surface observations and emphasized in particular palpation. As palpation I performed not only pulse diagnosis, but also meridian, abdominal and back diagnosis. This practice can be called a concrete example for "the richness of palpatory quality and thoroughness" said to be a characteristic of Japanese acupuncture. The multifaceted body surface observational findings also provide the ground for highly varied Oriental medical interpretations of the findings. This is conceivably one of the reasons giving rise the high degree of diversity of Japanese acupuncture and moxibustion.

In this case the examination also included physical examinations. The obtained physical findings allowed to assume the Western medical assessment of the pathophysiology of #1. Japanese acupuncture and moxibustion school education comprises the study of both Western and Oriental medicine. Also, many study meetings held in Japan provide the opportunity to study a great variety of subjects pertaining to acupuncture and moxibustion. The concrete details of subjects pertaining to acupuncture and moxibustion dealt with during those various study meetings depend on the specific views of the relevant study groups, their concepts of diseases, treatment, examination techniques and the relevant theories as well as therapeutic techniques. Study of these various concepts allows the practitioner to broaden his/her therapeutic horizon. A broader range of treatment options then makes it possible to treat patients with a variety of different diseases. The abundance of acupuncture and moxibustion treatment options forms the basis of the great diversity of Japanese acupuncture and moxibustion, and at the same time also the basis for the complexity of Japanese acupuncture and moxibustion.

V. Conclusions

A patient presenting with low back pain extending from the right lumbar to the right inguinal region and diarrhea was treated with acupuncture. Based on the therapeutic results I came to the conclusion, that the acupuncture treatment was effective. Examination particularly emphasized multifaceted body surface observations centering on palpation. This was also used to evaluate the therapeutic effects. Body surface observations effectively allow the practitioner both for the evaluation of the therapeutic effects and an assessment of possible future conditions of the patient. Multifaceted observation, in particular palpation, lie at the base of the diversity of Japanese acupuncture and moxibustion.

[References]

- 1) Kazuma Ito: "Current situation of the various Japanese Acupuncture and Moxibustion Schools"; in "Research into Social Acupuncture and Moxibustion 2011", Vol No. 6; 2012, pp.5-9
- 2) Shuichi Katai: "Acupuncture and Moxibustion Treatment in Japan" and "Japanese Acupuncture and Moxibustion" in "Research into Social Acupuncture and Moxibustion 2011", Vol No. 6; 2012, p.i.
- 3) Sodou Okabe: "Acupuncture and Moxibustion Meridian Therapy"; Sekibundo, 1974, pp.68-79
- 4) Shuichi Katai, Hirokimi Matsuda: "Japanese Acupuncture and Moxibustion in Crisis; facing various problems pertaining to global strategies of Chinese acupuncture and moxibustion" in "Oriental Medicine; Journal of Acupuncture & Moxibustion", Vol. 12 (2010), pp.15-33
- 5) Shuichi Katai: "Development of the Hands of Clinicians – Essay on reactivity and palpation", Rokuzensha, 2002
- 6) Shinichi Kinoshita (author), Kenji Okamoto, Yoshiki Sano, Shin Suzuki et al. editors: "Textbook for Mastering Basic Needling Techniques –the teacher-student education studies from Shin Kinoshita–", Japan Conference of Clinical Acupuncture Moxibustion, 2010
- 7) Shoji Shinohara, Nao Wazuchi, Katsuyuki Watanabe: "Current Situation and Problems of Japanese Acupuncture and Moxibustion Treatment Forms", supervised by Kazushi Nishijo, Takao Kumazawa "Science of Acupuncture and Moxibustion Clinics", Ishiyaku, 2000, pp. 3-28
- 8) Denmei Shudou: "Recommendation of Meridian Therapy", Ido no Nippon, 1988, pp.126-198
- 9) "Obtaining Body Surface Findings", "Acupuncture and Moxibustion OSAKA", Vol. 19, No. 3 (2003), pp.4-90
- 10) Renpu Fujimoto: "Body Surface Observation – the wisdom of Japanese Acupuncture Moxibustion; Midori Shobo Co., Ltd., 2012
- 11) Hirokimi Matsuda: "Collection of Interviews with Hirokimi Matsuda; in search of Japanese Acupuncture and Moxibustion I"; Midori Shobo Co., Ltd., 2010, pp.250-253
- 12) Kanpu Yokota, Shuichi Katai: "Touch, talk 9"; Ido no Nippon Vol. 69, No.1 (consecutive Vol. 796, 2010), pp.227-237
- 13) Renpu Fujimoto: "Body Surface Observation – the wisdom of Japanese Acupuncture Moxibustion; Midori Shobo Co., Ltd., 2012, pp.66-67

Clinical Report 2 (Kampo Medicine)

*A Case in of Continual Leg Cramps Successfully Treated
with Shigyakusan*

Satoshi Yamamoto¹⁾, Keiko Ogawa-Ochiai²⁾ and
Tetsuo Akiba³⁾

- 1) Center for Kampo Medicine, School of Medicine,
Keio University
- 2) Clinic of Japanese-Oriental (Kampo) Medicine,
Department of Otorhinolaryngology and
Head and Neck Surgery,
Kanazawa University Hospital
- 3) AKIBA Clinic of Traditional Medicine

Abstract

Objective:

The authors report a case of continual leg cramps successfully treated with *shigyakusan* — a prescription of Kampo (Japanese traditional herbal medicine).

Subject:

A 31-year-old male with continual leg cramps consulted our clinic. He has no past medical history except pollen allergy and was normal in the physical and blood examinations. His cramps temporarily relieved with *shakuyakukanzoto* — a common Kampo prescription for leg cramps, but had been recurring soon after a while.

Result:

By 30 minutes after *shigyakusan* administration, his leg cramp completely stopped, and no cramp recurred.

Conclusion:

It was found that *shigyakusan* might be an effective prescription for idiopathic continual leg cramps.

Introduction

There were no reliable therapies to reduce muscle cramps and pain immediately when muscle cramps happened even in hospitals or clinics. It is reported that some drugs such as quinine, vitamin E, chloroquine phosphate, and L-carnitine are effective,

but they only reduce the incidence or severity of leg cramps and are not for the acute therapy to reduce the cramps and the related pain themselves at the onset of cramps. Nifedipine likewise has been found to offer relief, but the frequent occurrence of hypotension makes use unpractical. Kampo is Japanese traditional herbal medicine based on the ancient Chinese medicine. Kampo prescriptions are covered under the National Health Insurance Plan of Japan, and are easily available to clinicians. *Shakuyakukanzoto* is the most common prescription for the leg cramp which cures acute state of the cramp. Some study showed that *shakuyakukanzoto* is effective on leg cramps seen in patients under hemodialysis.^{1,2} However, some of the patients are suffering from recurrent cramps even after *shakuyakukanzoto* administration. *Shigyakusan* (*sinisan*, in Chinese) is traditionally prescribed for irritation, stress and spasm of the abdominal rectal muscle, and possibly effects on chronic restraint stress-related disorders.³ A case with continual leg cramps effectively treated with *shigyakusan* is reported.

Case Report

A 31-year-old male with continual right leg cramps was seen in our clinic. He has no past medical history except pollen allergy. For several months, he was in stressed condition because the decision of his boss had been frequently changing. Since several days before visit, frequent leg cramps on his right leg began and he had difficulty in walking due to remaining continuous pain. He complained of leg cramps, irritated condition, tight pressure on his chest, and nightmare almost every day. Physical examination and blood examination findings were normal. *Shakuyakukanzoto* (Tsumura Shakuyakukanzoto Extract Granules for Ethical Use, Tsumura, Tokyo, Japan) 7.5g/day was prescribed for his leg cramps. Leg cramp temporarily relieved soon after administration, but

recurs after a while. He visited our clinic for further Kampo treatment.

Shigyakusan (TSUMURA Shigyakusan Extract Granules for Ethical Use, Tsumura, Tokyo, Japan) 7.5g/day on the basis of the concept of Kampo medicine. By 30 minutes after administration, his leg pain ceased. He continued *shigyakusan* for one week, and no cramp appeared in the period. Since then, he is taking the medicine as needed, when he had the prospect of leg cramp.

Discussion

Shakuyakukanzoto is commonly prescribed for leg cramps, but it is not enough effective in some patients. When the patient is with mental stresses which affect on the “liver”, *shigyakusan* is one of the candidates.

The extract of *shakuyakukanzoto* inhibited contraction of skeletal muscles in rats.^{4,5} This inhibition was observed in both the directly and indirectly stimulated contractions, and was not changed by addition of neostigmine, an acetylcholine esterase inhibitor. These findings of the experiments indicate that *shakuyakukanzoto* acts directly on skeletal muscles. *Shakuyakukanzoto* is a hot water extract from a mixture of equal parts of *Paeoniae radix* and *Glycyrrhizae radix*. The main components of the roots are paeoniflorin and glycyrrhizic acid. The mechanism of *shakuyakukanzoto* in the inhibition of muscular contraction remains to be fully elucidated. Previous reports claimed that a mixture of paeoniflorin and glycyrrhizic acid had no effect or no coordinative effect on skeletal muscles.⁴ One report, however, stated that paeoniflorinone, a component of *Paeoniae radix*, indirectly blocked stimulated twitch response.⁵ Another study confirmed that the blended paeoniflorin and glycyrrhizic acid indirectly blocks the stimulated twitching isolated sciatic nerve-sartorius muscle preparations in frogs (*Rana nigromaculata*), and in isolated or *in situ* phrenic nerve-diaphragm muscle preparations in mice.⁶ Therefore, we also suggest

that *shakuyakukanzoto* has an inhibitory effect on excessive muscle contraction.

As for *shigyakusan*, it contains *Bupleuri radix* and immature *Aurantii fructus* besides of *shakuyakukanzoto* (Table 1). From the concept of Kampo medicine, *Bupleuri radix*, or *saiko* in Japanese, spreads Liver qi and relieves constraints,³ and immature *Aurantii fructus* promotes the flow of qi. It has been said that stagnation of qi causes pain. The effect in qi circulation is stronger in *shigyakusan* than in *syakuyakukanzoto*.

Table 1

Compositions of *shigyakusan* and *shakuyakukanzoto* extract

Constituent herbs	Weight (g)	
	<i>Shigyakusan</i>	<i>Shakuyakukanzoto</i>
<i>Bupleuri radix</i>	5.0	-
immature <i>Aurantii fructus</i>	2.0	-
<i>Paeoniae radix</i>	4.0	6.0
<i>Glycyrrhizae radix</i>	1.5	6.0

The compositions of *shigyakusan* and *shakuyakukanzoto* are listed. After drying, the herbs (total amount, 12.5g and 12.0g) shown in the Table were boiled in 10 times of their weight of water for one hour. The resultant extracts were spray-dried. The daily dosages of *shigyakusan* (7.5g) and *shakuyakukanzoto* (7.5g) contained 2.25g and 2.5g of the resultant extract, respectively.

Conclusions

It was found that *shigyakusan* might be an effective prescription for idiopathic continual leg cramps.

Disclosure Statement

No competing financial interests exist.

References

1. Hinoshita F, Ogura Y, Suzuki Y, *et al.* Effect of Orally Administered Shao-Yao-Gan-Cao-Tang (Shakuyaku-kanzo-to) on Muscle Cramps in Maintenance Hemodialysis Patients: A Preliminary Study. *Am J Chin Med* 2003;31:445–453.
2. Hyodo T, Taira T, Takemura T, *et al.* Immediate Effect of Shakuyaku-kanzo-to on Muscle Cramp in Hemodialysis Patients. *Nephron Clin Pract* 2006;104:c28–c32.
3. Wang UT, Tan QR, Sun LL, *et al.* Possible therapeutic effect of a Traditional Chinese Medicine, Sinisan, on chronic restraint stress related disorders, *Neurosci Lett* 2009;449:215–219.
4. Kimura M, Kimura I, Takahashi K, *et al.* Blocking effects of blended paeoniflorin or its related compounds with glycyrrhizin on neuromuscular junctions in frog and mouse. *Jpn J Pharmacol* 1984;36: 275–282.
5. Kimura M, Kimura I, Takahashi K, *et al.* Blocking effects of a new component, paeoniflorigenone in paeony root on neuromuscular junctions of frog and mouse. *Jpn J Pharmacol* 1984;35: 61–66.
6. Takagi K, Harada M. Pharmacological studies on paeony root. III. Effects of paeoniflorin on circulatory and respiratory systems and isolated organs. *Yakugaku Zasshi* 1969;89:893–898 [Japanese, abstract in English].

Medical History in Japan

Historical Significance of the Standardization of Acupoint Locations”, the Second Japanese Acupoint Committee (6) “Detailed Guide to the Location of Acupoints” from the classics to the WHO standardization”, pp411-422, Tokyo, Ishiyaku Publishing, June 2009 (partially revised)

Makoto Mayanagi
 Graduate School of Humanities
 Ibaraki University

(continued from KAIM Journal vol.6 no.1, no.2, no.3, no.4 and vol.7 no.1)

5. Acupoint charts up to the Tang period and changes in acupoints

Since acupoints are located on the body surface their visualization through illustrations has undoubtedly started from an early point in time. Therefore, the "Ming Tong Illustrations" have probably been drawn around the creation of the original "Ming Tong Jing". Because no directly derived drawings exist, there are no concrete clues, but it can be imagined based on acupoint illustrations up to the Tang period.

The oldest extant text with acupoint charts currently known is the Yellow Emperor's Toad Prohibitions for Moxibustion & Cauterization *Huáng Dì Xiā Má Jing* (Figure 7) and based on the works listed in the Record of the Bibliographic Catalogs of the Sui dynasty it seems likely that the roots have been established in the 3rd century. Not surprisingly, similar to the "Ming Tang", these have been scattered and lost in China and have been preserved and handed down only in Japan. The old manuscripts were discovered during the late Edo period by Mototsugu Taki of the Shogunate Medical School. Figure 7 shows a replica of the Shogunate Medical School's copy and names of acupoints along the hairline or Renying (ST9) can be seen. Moreover, it includes a description that like the imaginary toad and rabbit on the moon moxibustion treatment of some acupoints should be avoided in correlation with the waxing and waning of the moon.



Figure 7 *Huáng Dì Xiā Má Jing*



Figure 8 *Ishinpo*

In the Heian period Yasunori Tamba compiled the text "Ishinpo" based mainly on works from before the Sui and Tang periods and presented this to the emperor in 984. In the 22nd volume are illustrations for each of the 10 months of pregnancy, for each an illustration of a naked pregnant woman, fetus, viscera and bowels, meridians and acupoints. All of which are derived from the Chang Jing. Among these the contents related to the correlation between fetal development and viscera-bowels-meridians originates and has been transmitted from the "Tai Chan Jing" (text on fetuses and birth), placing its origin extremely far into the past. The date of creation of the Chang Jing quoted in the Ishinpo is not clear, but considering the 5th century appears to be acceptable and most likely. Figure 8 shows a reproduction of the "National Treasure Seikido Library [12], but the book of the Seikido library is an associated book that has diverged from the Nakarai's national treasure book during the Edo period, so that it cannot definitely be concluded, that the red lines indicating meridians are actually derived from the "Chang Jing".

A text with acupoint charts of the Tang period was unearthed in Dunhuang. Figure 9 shows the Stein Text No. 6168 from The British Library in London and is called the "Illustrated Moxibustion Technique" of the "Moxibustion Scripture". Like the Xia Ma Jing no meridians are drawn and only points not used today like "Shou Suikong" or "Wuzhou" have been marked. Also, the Pelliot text No. 2675 [13], which is in the possession of the La Bibliothèque nationale de France, mentions at the beginning a "First Volume of the New Adorned Scripture of Moxibustion for Acute conditions". In other words, this text was a reproduction of the one volume work "Xinxu Beiji Jiujiing" published by the Li family living a business area in the eastern market of the capital (today called Xi'an). On the backside of the paper the second half of this book describes the location of the "human-spirit" elements correlated to the suitability for treatment as

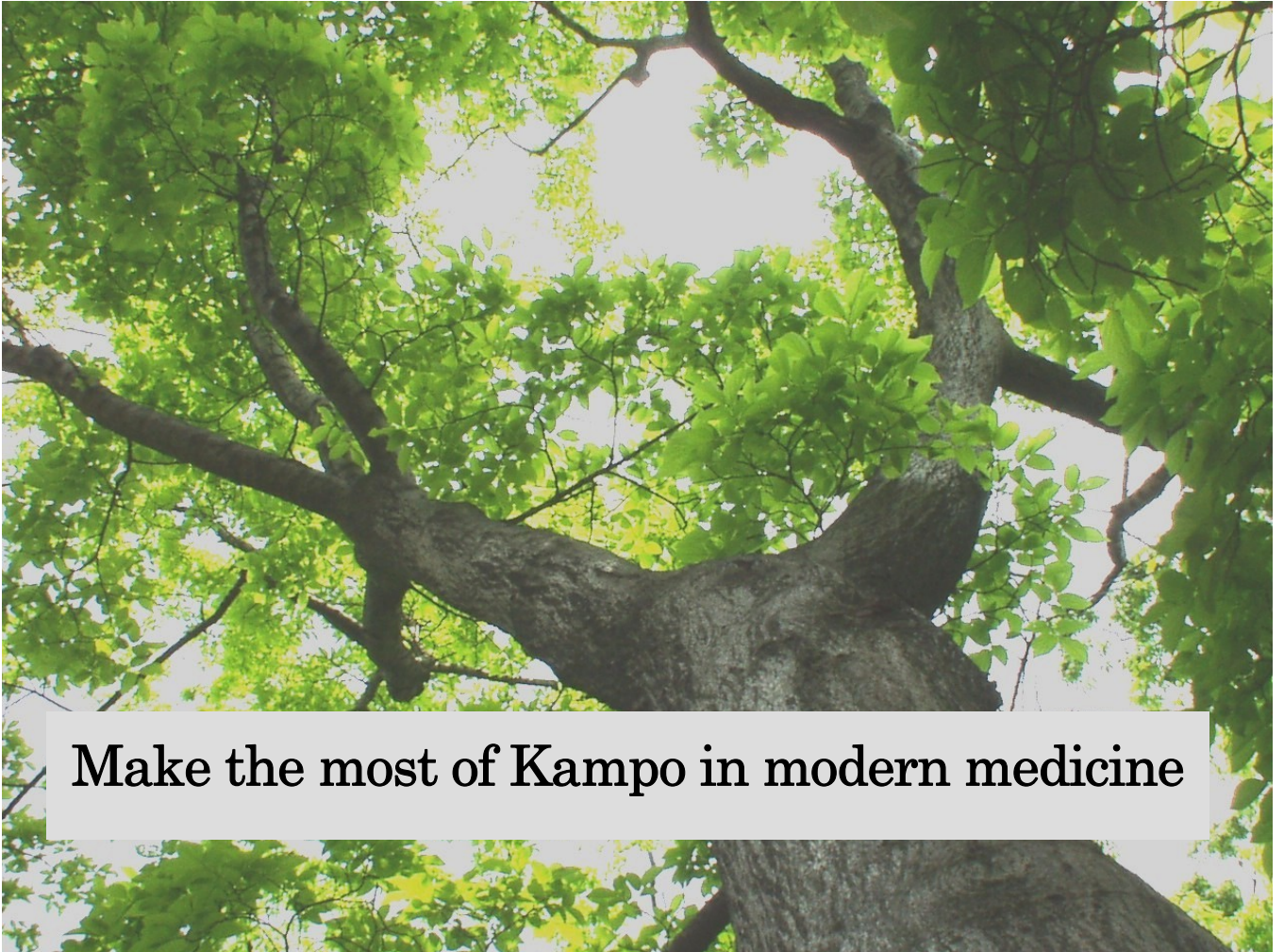
regulated by the oriental zodiac signs characteristic of the birth year, seasons, months and days, while at the end there is a transcription of the year 861. Thus, this book shows clearly that during the Tang period prior the year 861 textbooks about moxibustion have already been published in Xi'an. At the same time this is also the oldest extant medical book publishing record.



Figure 9 Stein Text No. 6168 (London, The British Library)

On the other hand, paying attention to the hair style shown in Figures 7-9 reveals that although only Figure 8 shows a woman, all are very much alike. The drawing style of the bodies too is strikingly similar. This shows, that until the Tang period the acupoint charts adopted a standardized style. What is more, in Pelliot's text No. 2675 there is a large inscription of "Ming Tang" above the body, revealing that acupoint illustrations have been called "Ming Tang". If that is so, the "Ming Tang Tu" prepared in the third century too was drawn in this style and later presumably followed until the Tang period. Yet, changes occurred in the acupoints. The points "Shou Suikong" or "Wuzhou" shown in Figure 9 are

not found in the "Ming Tang", and in Pelliot's text No. 2675 the point GB21 jianjing (肩井) is called bo jing (膊井), the point TE20 jiaosun (角孫) is recored as yin hui (陰会), the point GV23 shengting (神庭) is called zhu shen (住神) and the point between the eyebrows EX-2 yin tang is called guang ming. During the time following the "Ming Tang" too different names for acupoints and new acupoints appeared and different schools and theories using those names continued to be established.



Make the most of Kampo in modern medicine

Foundation: 1905

A century of tradition —————

We are a manufacturer consistently controlling the entire process from the import of crude herbs to the manufacture of Kampo extracts and as such have contributed to the development of Japanese Kampo.

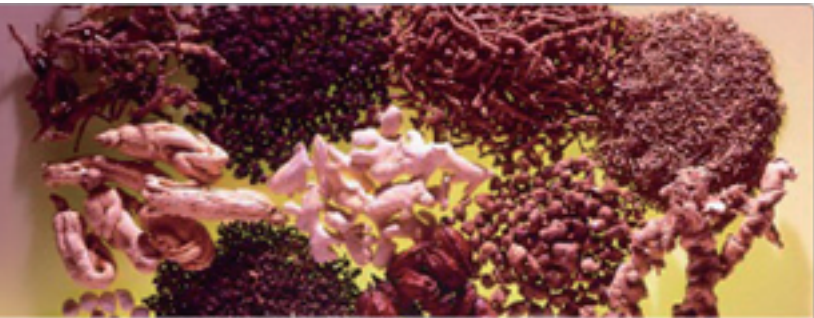
We sincerely hope to continue in the future with our contribution to modern medicine through "Kampo".



オスギ

OHSUGI Pharmaceutical Co., Ltd.
1-1-2 Tennojicho, Minami, Abeno-Ku, Osaka, Japan
Phone: +81-6-6693-3301

Dedication to Crude Drugs
SINCE 1928



Tochimoto wishes ● ● ●

to be a partner of a wide range of industries from the pharmaceutical to the food and the beauty by providing natural and herbal medicines of good quality.

The crude drugs like many other creatures on earth are raised by bountiful NATURE.

Humankind earns as well grace from Mother Nature and is blessed as a member of natural world.



PROFILE *of* **TOCHIMOTO**

Since Tochimoto was appointed as a Japan-China friendship trading firm in 1963, we have expanded our business overseas, mainly with China.

We import a variety of quality-controlled natural resources from all over the world for maintaining wellness.

TOCHIMOTO TENKAIDO CO., LTD.

3-21 Suehiro-cho, Kita-ku, Osaka 530-0053, JAPAN

www.tochimoto.co.jp

Kracie

KEEPING PACE WITH THE TIMES,
MILD MEDICAL TREATMENT FOR HUMAN



twice or three times a day, possible to select



We wish you a healthy living

For more information, please contact

Kracie Pharmaceutical, Ltd.

20-20, Kaigan 3-chome, Minato-ku, Tokyo 108-8080

<http://www.kampoyubi.jp>

Printed in Oct.2007



My choice is SEIRIN

What's yours?

For painless acupuncture treatments
I always trust Seirin.

New patients are surprised by its comfort, and my
regular clients ask for it by name.

Exceptional Products.

Join the thousands of distinguished professionals who have counted on SEIRIN for over 30 years to provide the highest quality needles for you, and a painless experience for your clients.

