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College Logos

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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.

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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.



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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.

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Editorial

The Past, Present and Future of Kampo Extract Preparations in Japan

Kampo extract preparations typically known throughout the world today are produced by crude herbs — originally for traditional formulations of decoction, pill and powder— decocting in water, extracting their active ingredients, then adding an excipient. This technology was developed in Japan.

Kampo extract preparations have been developed and subject to clinical tests by Dr. Takeshi Itakura from as early as the first half of the 1940s. Dr. Itakura's research was thereafter suspended, but in 1950, Dr. Takeshi Watanabe completed the original form of today's extract preparations, and in the mid-1950s, a number of pharmaceutical companies commercialized them and began selling them in pharmacies. Extract preparations were first widely available over-the-counter (OTC) before they were approved as ethical drugs in 1976.

This development allowed physicians to handle Kampo medicine in a convenient manner—in prescription units—at medical facilities covered by health insurance which Kampo medicine were previously irrelevant. Extract preparations were originally recognized as an alternative to decoctions, but their market steadily expanded thereafter owing to their convenience, such that they have come to be used widely in the medical field in place of decoctions.

There are 148 types of extract preparations in Japan. One of their salient characteristics is that they are each made according to a fixed formula prescription. Extract preparations are rigidly regulated by the Ministry of Health, Labour and Welfare, from their raw ingredients to production process. They ensure high quality as meeting an advanced Kampo GMP that pharmaceutical manufacturers voluntarily establish in addition to general GMP. Owing to this, it has become possible to conduct diverse clinical trials, and in fact, a number of case series and RCT have emerged today, and are expected to increase even more hereafter.

The second characteristic is that approximately half of all prescriptions are sourced on the *Shokanron* (*Shan Hang Lun*) and *Kinkyoryaku* (*Jin Gui Yao Lue*). These classic preparations, from which Kampo medicine was derived, started being used frequently in Japan from around 300 years ago, and have provided a rich accumulation of experience to practitioners. Their extremely sophisticated content, high clinical value, and wide scope of applications have greatly contributed to popularizing extract preparations in Japan.

The indications of Kampo extract preparations were widely studied along with the development of modern medicine, and they came to be used for the treatment of a diversity of diseases beyond comparison with those in ancient China. The study of their side effects has also advanced, and sufficient knowledge of their safety has spread. Although the market is extremely small, worth merely around 140 billion yen, Kampo extract preparations play an extremely large role in supporting Japanese medical and healthcare field. Their needs will undoubtedly continue to grow in the future.

Akihiro Soma

Editorial Staff of the Journal of KAIM

Integrating Kampo and Evidence-Based Medicine (4) – Type 3 Case

The Effects of Kampo Medicine against the Side Effects of Anticancer Drugs

Hikomichi Yasui
Japan Institute of TCM Research

Introduction

In this series, I define four types of use of Kampo medicine in daily clinical practices within Japan's unified medical system, and discuss the diseases that fall under each of these types, by giving relevant case examples. In the previous issue of this journal, I introduced four episodes, and explained that they fall under the four types of use of Kampo medicine in daily clinical practices. Let me recount them below.

- Type 1: Kampo treatment is better than standard modern medical treatment
- Type 2: The effects of standard modern medical treatment and Kampo treatment are both strengthened when the two are used in combination
- Type 3: The side effects of standard modern medical treatment can be mitigated in combination with Kampo treatment
- Type 4: Circumstances prevent the application of standard modern medical treatment, but treatment is needed

In this article, we shall take a look at Type 3 cases, in which Kampo treatment is used in combination with standard modern medicine to mitigate the side effects of the latter. Representative of these are cases in which Kampo medicine is used to mitigate the side effects of anticancer drugs that are commonly used against cancer. No data exists that shows that Kampo medicine could treat cancer per se, but many studies provide proof that it has the effect of mitigating the side effects of operative treatment, anticancer drug treatment, radiation treatment,

and other such treatments that are used to treat cancer.

Below, I shall discuss how Kampo medicine is used against the side effects of anticancer drugs in routine clinical practice, through examples.

1. A Certain Episode

Prof. Yoshiharu Motoo (Department of Medical Oncology, Kanazawa Medical University) provides front-line treatments to cancer patients. He is a close friend of mine who also actively engages in the study of Kampo medicine, in an effort to constantly provide the best treatment to his patients by combining the two.

Dr. Motoo has treated many cancer patients to date, and has presented many papers. I have heard many stories of his experiences, but I found the following case particularly interesting.

A man in his late fifties received surgery for transverse colon cancer in March 20XX. He was at Stage IIIb. Since the five-year survival rate of Stage IIIb transverse colon cancer is approximately 60.1%, his prognosis was not good. Therefore, the mFOLFOX6 regimen was decided to be administered as postoperative adjuvant chemotherapy. This mFOLFOX6 is a chemotherapy regimen that combines folinic acid (Leucovorin), 5-FU, and oxaliplatin.

The side effects of FOLFOX treatment are diverse. Effects that emerge immediately after administration of the treatment include peripheral neuropathy such as numbness and pain in the hands, feet and mouth; myelosuppression; digestive symptoms such as nausea, vomiting, and loss of appetite; diarrhea and other lower digestive tract disorders; stomatitis; and taste disorders. Several weeks later, skin and nail discoloration, hand-foot syndrome, hair loss, and other symptoms begin to appear. Frequently, these side effects require a reduction in drug dose or a suspension of drug administration.

In response to this situation, Dr. Motoo prescribed 9.0 g/day of ninjin'yoeito extract for ethical use (Tsumura & Co., Ltd., Tokyo, Japan) from the first cycle of chemotherapy, to mitigate peripheral neuropathy and hematotoxicity among the side effects. As a result, mFOLFOX6 dose did not need to be reduced to the end, and the postoperative adjuvant chemotherapy was successfully completed after administering the planned 12 cycles. The cumulative dose of oxaliplatin was 1,020 mg/m², but no accumulative peripheral neuropathy appeared. Only acute peripheral neuropathy was noted, but it was up to grade 1, and disappeared at an early stage. At a performance status (PS) of 0, the patient was thereafter able to complete his treatment while engaging in regular work duties.

In this case, neither the physician nor the patient was optimistic of the prognosis, as the patient had Stage IIIb transverse colon cancer and was at high risk of recurrence. However, what was immediately necessary was to mitigate the side effects of mFOLFOX6 treatment and successfully complete

the postoperative adjuvant chemotherapy to prevent recurrence.

In particular, peripheral neuropathy that occurs as a side effect of oxaliplatin was a burden for the patient, to the point that treatment is sometimes interrupted for this reason. Therefore, the fact that this particular patient's condition progressed in an extremely mild manner probably lightened his spirit. Generally, when the cumulative dose of oxaliplatin exceeds 500 mg/m², grade 2 peripheral neuropathy is said to occur at a rate of 30%, but this patient's dose had exceeded 1,000 mg/m². The administration of ninjin'yoeito helped maintain his PS at a good level and would probably lead to his good prognosis thereafter.

Dr. Motoo provides this type of treatment to many patients within his daily clinical practice. The Kampo medicine that was used here was ninjin'yoeito, chosen based on Dr. Motoo's long years of clinical experience.

Dr. Motoo has published many papers on the adjunctive use of Kampo medicine to standard cancer treatment, from which we daily benefit¹⁾.

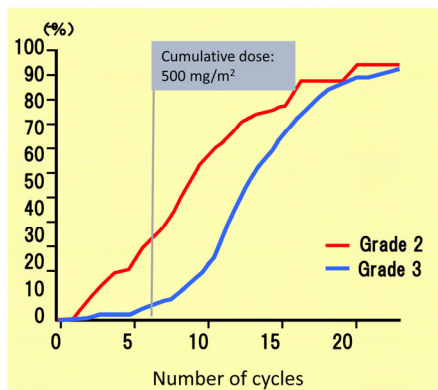
Reference: Peripheral neuropathy caused by Oxaliplatin (product name: L-Plat®)

Peripheral neuropathy caused by Oxaliplatin

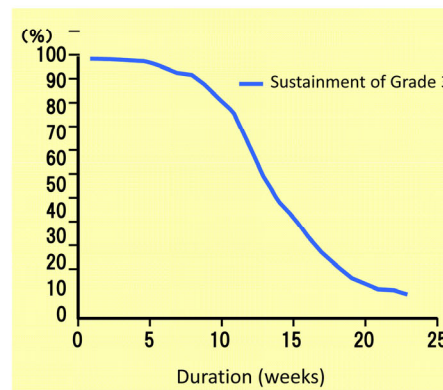
—From the manifestation of functional disorders to recovery—

●Rate of manifestation by number of cycles

●Duration of sustainment of Grade 3



Grade 2 and 3 peripheral neuropathy occurred at a rate of 10% after 3 – 9 cycles, 25% after 8 – 12 cycles, and 50% after 10 – 14 cycles.



Patients who were able to recover: 25 (74%)
Median period until recovery: 13 weeks

J Clin Oncol 18:2938–2947, 2000

De Gramont A, et al: Leucovorin and fluorouracil with or without oxaliplatin as first-line treatment in advanced colorectal cancer. *J Clin Oncol* 18: 2938-2947, 2000

2. General Malaise, Loss of Appetite, Poor Mood, etc. during Cancer Chemotherapy

All anticancer drugs accompany side effects to some extent. It is said that hochuekkito is effective against these side effects^{2) 3)}, and general clinicians widely administer this prescription to patients who are undergoing chemotherapy. jumentaihoto is another prescription that is used frequently for the same purpose. Its effects against leukopenia and thrombopenia and controlling metastasis have been verified in animal experiments⁴⁾.

In Japan, hochuekkito, jumentaihoto, and ninjin'yoeito are commonly prescribed to increase body strength and improve appetites during chemotherapy against cancer, but there are specific Kampo prescriptions for each type of symptom.

3. Utilization of Kampo Medicine to Mitigate the Side Effects of Anticancer Drugs

1) Effects of Kampo medicine against the side effects of Cisplatin and Carboplatin

In Dr. Motoo's case, ninjin'yoeito was used to mitigate the side effects of oxaliplatin. Goshajinkigan has also been reported to be effective by Shindo et al⁵⁾.

Platinum compounds cisplatin (CDDP) and carboplatin (CBDCA) display a strong antitumor effect, but their side effects are also strong, and difficulties are often experienced in counteracting them. A number of studies regarding this are introduced below.

The first is a study of saireito against kidney damage when administering Cisplatin.

Dr. Jiro Okimoto et al. investigated renal damage after administering Cisplatin through two groups of lung cancer patients: 10 patients in the saireito group were given 9g/day of saireito extract (Tsumura Pharma, Ltd., Tokyo, Japan) for 15 days beginning on the day before administering Cisplatin, and 16 patients in the control group were not given saireito. As a result, the control group saw an increase in BUN such that average BUN was 26.5 mg/dL on the third day of Cisplatin administration and 25.4 mg/dL

on the seventh day, but in the saireito group, BUN did not exceed the normal level of 20 mg/dL neither on the third nor seventh days. Furthermore, in the control group, Cisplatin administration brought about a decrease in Ccr (creatinine clearance) and an increase in NAG (N-acetyl-β-D-glucosaminidase), but such fluctuations were significantly controlled in the saireito group. From this result, Dr. Okimoto et al. suggest that saireito mitigates Cisplatin renal damage⁶⁾.

Another study examines the effect of jumentaihoto against myelosuppression caused by the administration of Carboplatin. Dr. Jiro Okimoto et al. investigated Carbotin myelosuppression by examining 70 lung cancer patients who were not administered jumentaihoto in the first cycle but were administered 7.5 g/day of jumentaihoto extract (Tsumura Pharma, Ltd., Tokyo, Japan) for 21 days from the day before being administered Carboplatin in the second cycle. As a result, Hb decreased by 3.1 g/dL on the average when comparing the levels before and after Carboplatin administration in the first round, but decreased by only 1.4 g/dL on the average in the second round, indicating that the decrease of Hb was significantly controlled. The lowest values of leucocytes and neutrophils were 2,230/μL and 740/μL on the average, respectively, in the first round, and 2,960/μL and 1,220/μL on the average in the second round, indicating that the decrease in leucocytes and neutrophils were significantly controlled. The lowest value of platelets decreased by $5.7 \times 10^4/\mu\text{L}$ on the average in the first round, but decreased by a mere $9.0 \times 10^4/\mu\text{L}$ on the average in the second round, indicating that the decrease in platelets was also significantly controlled⁷⁾.

2) Kampo medicine against the side effects of fluoropyrimidine drugs

Fluoropyrimidine drugs are antimetabolites. The most representative is Fluorouracil (5-FU), from which a number of drugs have been developed as prodrugs. Its side effects occur in the mucous

membrane of the alimentary canal and bone marrow, where cellular proliferation potential is high. As a result, digestive symptoms such as loss of appetite, general malaise, diarrhea, nausea, vomiting and stomatitis appear, in addition to myelosuppression symptoms such as leukopenia. Hair loss and hand-and-foot syndrome may also appear.

A number of clinical studies are introduced below.

Dr. Takuya Yamada conducted a randomized controlled trial (RCT) on 94 postoperative gastric cancer patients by prescribing an oral administration of 5-FU to all patients and dividing them into a group that was also given *juzentaihoto* in combination and a group that was not. No difference in five-year survival rate was observed among all patients and patients in Stages I and II, but among patients in Stages III and IV, median survival time was 35.1 months for the combined administration group and 14.3 months for the non-combined administration group. Five-year survival rate was 25% for the combined administration group and 0% for the non-combined administration group. This showed that life expectancy was significantly extended in the combined administration group⁸.

Dr. Tsuyoshi Ohara et al. conducted an RCT on a total of 178 patients who were prescribed Tegafur for gastric cancer, colorectal cancer, breast cancer, or other types of cancer, by dividing them into a *hochuekkito* combined administration group, a *ninjin'yoeito* combined administration group (as will be discussed later), and a Tegafur single administration group. As a result, significant improvements were observed in subjective symptoms, objective symptoms and general symptoms in groups administered with Kampo medicine in comparison with the control group (non-administration group). The side effects of Tegafur were observed in all groups, but they were not of a serious level in the Kampo administration group. Additionally, an improvement in appetite was observed in the *hochuekkito* group, and improvements in nausea, vomiting, bowel movement,

motivation, fatigue and malaise were observed in the *ninjin'yoeito* group⁹.

3) Kampo medicine against the side effects of Irinotecan

Irinotecan (CPT-11) is a semisynthetic of Camptothecin with a wide antitumor spectrum. In addition to single administration, it is frequently used in combination with other drugs, such as in FOLFIRI (Folinic acid + 5-U + Irinotecan) treatment. Its side effects include leukopenia, diarrhea, and general malaise.

Among these side effects, it has become possible to improve leukopenia by administering a human granulocyte colony-stimulating factor (G-CSF). With regard to diarrhea and general malaise, the combined use of Kampo medicine has been found to be effective to a certain extent.

Hangeshashinto is used particularly for delayed diarrhea. Dr. Kiyoshi Mori et al. performed a standard treatment against progressive non-small cell lung cancer by combining the use of Cisplatin and Irinotecan. Particularly to prevent delayed diarrhea caused by Irinotecan, he administered 7.5 g/day of *hangeshashinto* extract (Tsumura Pharma, Ltd., Tokyo, Japan) and evaluated its clinical efficacy through an RCT. Of the 41 patients who were able to be evaluated, there were 18 patients in the *hangeshashinto* administration group and 23 patients in the non-administration group. Improvements in diarrhea were evaluated from Grades 0 to 4. In the first round of treatment, a significant improvement in diarrhea grade was observed in the administration group compared to the non-administration group ($P = 0.044$), and the incidence rate of diarrhea Grade 3 and above was significantly low ($P = 0.018$)^{10 11}.

4) Kampo medicine against the side effects of taxane drugs

Paclitaxel and Docetaxel are taxane anticancer drugs. Paclitaxel was discovered from the bark of *Taxus brevifolia*, and is used singly or in combination with another anticancer drug. Among the side effects of taxane anticancer drugs, digestive symptoms such

as nausea and vomiting are rare, but leukopenia and other myelosuppression occur at a high rate, and hair loss is inevitable. With Paclitaxel, peripheral neuropathy such as numbness at the tips of hands and feet, as well as muscle pain and joint pain also appear at a high rate (35.7%).

There are a number of reports that say goshajinkigan and shakuyakukanzoto are effective in mitigating peripheral neuropathy, muscle pain and joint pain caused by Paclitaxel.

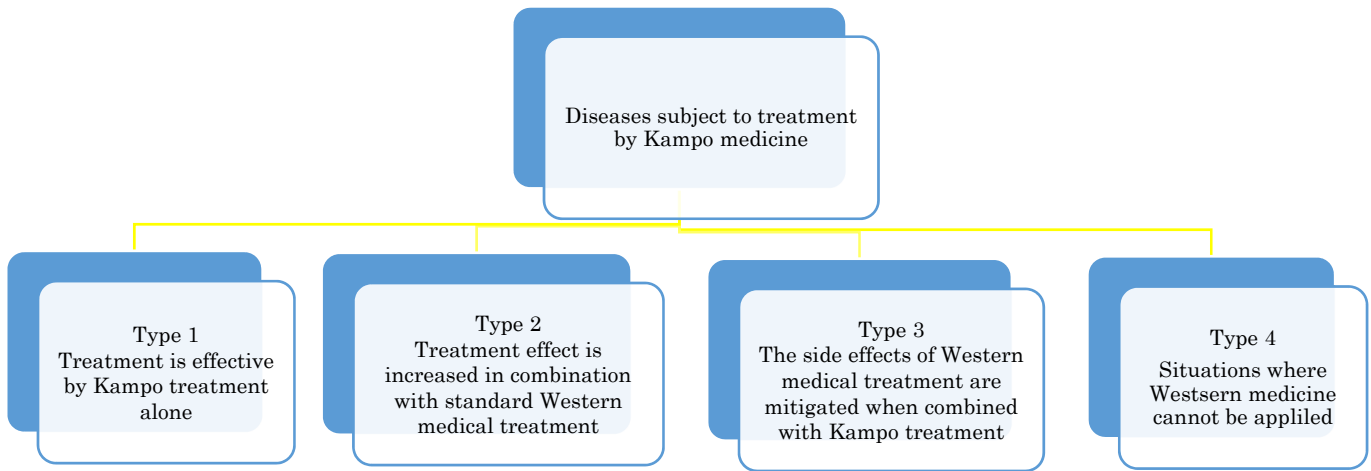
Dr. Takao Hidaka et al. examined the clinical efficacy of shakuyakukanzoto against muscle pain in 20 serous ovarian cancer patients who began receiving combination chemotherapy using Paclitaxel and Carboplatin but who displayed muscle pain of Grade 2 (degree of pain that requires several doses of analgesic) or higher even after using NSAIDs in the first round of treatment (average age: 59.8±7.7; 36 – 73 years of age). In the second round, the patients were given 7.5 g/day (3 times a day) of shakuyakukanzoto extract (Tsumura Pharma, Ltd., Tokyo, Japan) for 7 days from the first day in combination with NSAIDs. He then evaluated its analgesic effect using an independently developed five-stage pain evaluation system, and compared the pain scale value of each round with the index value. As a result, by using shakuyakukanzoto, the degree of the progressing muscle pain significantly decreased ($P = 0.015$), and its duration became significantly shorter ($P < 0.01$)¹².

Above, we have seen a number of cases in which Kampo medicine was able to mitigate the side effects of anticancer drugs that are used against malignant tumors. They are but a few examples. In actual clinical practice, much larger numbers of Kampo medicine are used in response to diverse situations. They shall be taken up little by little in this series.

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The four types and their characteristics



[List of prescriptions]

ninjin'yoeito 人参養榮湯

hochuekkito 補中益氣湯

juzentaihoto 十全大補湯

saireito 柴苓湯

hangeshashinto 半夏瀉心湯

goshajinkigan 牛車腎氣丸

shakuyakukanzoto 芍藥甘草湯

Japanese Acupuncture - Current Research

Japanese Traditional Medicine Text (18) – Acupuncture and Moxibustion Therapy for Rheumatoid Arthritis and Connective Tissue Diseases

Daichi Kasuya

A. Introduction

Chronic inflammatory diseases as represented by rheumatoid arthritis (RA) have conventionally been considered indications of acupuncture and moxibustion therapy. According to a national basic health survey, approximately 80% of RA patients make regular visits to a masseur, acupuncture clinic or judo therapy clinic in addition to a medical institution. Even in today's society where clinical practice guidelines are centered on pharmacological treatment, patients with diverse complaints make visits to such abovementioned clinics seeking acupuncture and moxibustion therapy. This section will thus discuss the roles and possibilities of acupuncture and moxibustion therapy by introducing summaries of references, and particularly clinical studies, on the effectiveness and present status of acupuncture and moxibustion therapy with regard to rheumatoid arthritis and connective tissue diseases.

1. Collecting references

The Igaku Chuo Zasshi web database of the Japan Medical Abstracts Society (1983-2009) was used to collect all relevant Japanese references, excluding conference minutes. Western references were collected using PubMed and specifying "randomized controlled trial" and "clinical trial" as the research design. The search terms that were used included the following: acupuncture, moxibustion, rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), polymyositis (PM), dermatomyositis (DM), systemic sclerosis (SSc), mixed connective tissue disease (MCTD), Behçet's disease (BD), vasculitis syndrome, Still's disease, Sjogren's syndrome (SjS), ankylosing spondylitis

(AS), antiphospholipid antibody syndrome, and Felty's syndrome. Osteoarthritis and fibromyalgia were excluded from the definition of connective tissue diseases. The results were then analyzed with regard to four items: (1) Conditions of subject-patients (disease activity and functional disorders), (2) method of acupuncture and moxibustion therapy, (3) evaluation method, and (4) effects.

2. Results

The search through the Igaku Chuo Zasshi database yielded the following results: 54 references on RA, 5 on SjS, 3 on SSc, 2 on SLE, 2 on BD, 2 on PM/DM, 1 on AS, one on MCTD and one on premature RA. RA accounted for more than 80% of all connective tissue diseases. The search of overseas references in MEDLINE yielded the following results: 42 references on RAs, 3 on AS, 3 on SSc, 2 on SjS, 2 on SLE, and 1 on BD. Again, many results tended to be acquired for RA. Based on these results, RA and other connective tissue diseases will be discussed separately below.

B. Present Status of Acupuncture and Moxibustion Therapy for RA

1. Case reports and accumulation of cases in Japan

• RA Conditions (disease activity and functional disorders)

Only 32 among the 54 references contained information about RA conditions. Of these 32, 30 deal with cases showing relatively stable disease activity, and 29 deal with cases in which patients are able to take care of themselves even while experiencing pain from a class 2 or 3 functional disorder. This shows that acupuncture and moxibustion therapy is mostly performed when RA activity and the patient's overall condition are relatively stable, and that the therapy tends to be applied to mild rather than severe cases of functional disorder.

● **Methods of acupuncture and moxibustion therapy**

The methods of treating RA by acupuncture and moxibustion therapy included the following: application of acupuncture and moxibustion to tenderness and induration of the affected joint or the whole body (13 references); modern medical treatment (emphasis on modern physiology, pathology, and anatomical science) (12 references); classic treatment (emphasis on proof of meridians) (8 references); traditional Chinese medicine treatment (emphasis on traditional causes and proof) (5 references); moxibustion only (4 references); ryodoraku medicine (3 references); the Nagano method (2 references); and others (5 references). In these ways, the results showed that RA is treated by a wide variety of schools, as there are no acupuncture points or treatment method specific to RA, and revealed the uniqueness of acupuncture and moxibustion therapy.

● **Evaluation method**

Effectiveness was measured by the following evaluation methods (with some overlapping): visual analogue scale (VAS) (22 references); the practitioner's own method of evaluation (11 references); rheumatoid activity index and improvement criteria of the American College of Rheumatology (ACR Core Data Set) (7 references); Arthritis Impact Measurement Scales version 2 (AIMS-2) (RA QOL assessment method) (6 references); face scale (4 references); pain scale (4 references); and no evaluation conducted (1 reference). Conventionally, evaluations by patients themselves, such as by using VAS, were the mainstream, but in recent years, a number of references has appeared that utilize the ACR Core Data Set, which serves as a global "gold standard" by also including blood and biochemical blood examination data, and RA QOL assessments.

● **Effects**

As to the effects based on the above-mentioned evaluation methods, the largest number of references referred to pain relief (42 references),

followed by mitigation of functional disorder (26 references), improvement of QOL (9 references), improvement of general conditions (1 reference), the value of acupuncture and moxibustion therapy as complementary medicine (1 reference), and the effectiveness of acupuncture and moxibustion therapy in combination with pharmacological treatment (1 reference). The main effects of acupuncture and moxibustion therapy for RA mostly tend toward the relief of joint pains and mitigation of functional disorder, including improvement of ADL.

As shown above, clinical reports on RA cases in Japan can be summarized as follows. (a) Subjects are patients whose RA activity or functional disorder is relatively stable. (b) There are diverse methods (concepts) of acupuncture and moxibustion therapy, but their goal is pain relief and functional improvement. (c) There is no specific acupuncture point for RA. (d) Immediate and cumulative effects are recognized, based on evaluations by patients. (e) Some of the known effects are pain relief, functional improvement and QOL improvement. (f) There is no mention of the corrective effects on autoimmune abnormalities or anti-inflammatory actions.

These clinical reports also pose the following issues. (a) Many do not provide information on the medical condition (extent of disease activity or functional disorder) of RA patients. (b) No observations are made regarding the effects of drugs even if they are administered in combination. (c) RA symptoms come and go, but only three references provide information of cases in which acupuncture and moxibustion therapy was continued for more than a year, where the same situation would normally warrant a long-term follow-up of more than a year in other treatment areas. (d) Pain relief and functional improvement were acknowledged from the results of this study, but pain relief alone cannot be said to control the bone destruction action unique to RA. (e) No shared understanding has been achieved on what type of indicator should be used if

anti-inflammatory actions and corrective effects on autoimmune abnormalities were to be presented in a clinical study.

2. Comparative tests in Japan and overseas (Table 16) 1-3)

Comparative tests by PubMed show that many reports recognize the effectiveness of diverse acupuncture and moxibustion treatment methods, ranging from electric acupuncture and ear acupuncture to moxibustion and systemic therapy, compared to using drugs alone or sham treatment (sham acupuncture). Furthermore, they acknowledge the effects of pain relief, functional improvement and QOL improvement, using such evaluation methods as VAS, ROM, blood tests and the ACR Core Data Set.

The “randomized comparative test of facilities that provide acupuncture and moxibustion therapy for rheumatoid arthritis,” which was conducted by this writer over a period of three years with funding from the Health Labor Sciences Research Grant, also recognized that the combination of pharmacological treatment with acupuncture and moxibustion therapy led to an improvement of pain and ADL and increased the QOL of rheumatoid patients compared to pharmacological treatment alone⁴⁾. Thus, it is thought that by properly assessing the conditions (degree of RA activity and functional disorder) of RA patients and administering treatment that is appropriate to each stage of the disease, acupuncture and moxibustion therapy could adequately address the diverse symptoms of RA.

At the same time, however, there are differences in opinion regarding the evaluation of RA reviews. Reports that evaluate the use of acupuncture and moxibustion therapy for RA as ineffective or undeterminable gave problems in research design or number of cases as their reason for not being able to make a judgment. Those that evaluate it as effective say that it is more effective than sham treatment, that effectiveness is increased in combination with pharmacological treatment and other such treatments, and that long-term treatment is effective.

C. Present Status of Acupuncture and Moxibustion Therapy on Collective Tissue Diseases Other than RA

1. Case reports and accumulation of cases in Japan

There are few reports compared to those on RA, indicating that acupuncture and moxibustion therapy is not frequently applied to collective tissue diseases in reality. However, reports that do exist acknowledge the improvement of pain, Raynaud’s phenomenon and functional disorder when current treatment is combined with acupuncture and moxibustion therapy against disease-specific symptoms. They utilize thermography and a blood flow meter to evaluate Raynaud’s phenomenon in SSc, SLE and MCTD, use saliva production as an indicator for dry symptoms in SjS, and examine immunological tests and changes in antinuclear antibodies for SSc, SLE and BD.

Table 16: Evaluation of RA reviews

Ineffective/Undeterminable	<ul style="list-style-type: none"> - Ernst E: Rheumatol, 2006(2) - Casimiro L: Cochrane Database Syst Rev, 2005(4) - Berman BM: Rheum Dis CLin North Am, 2004(1) 	-> - It is difficult to judge, due to problems in research design and number of cases.
Effective	<ul style="list-style-type: none"> - Soeken KL: Clin J Pain, 2004(1) - Gaus W: Arzneimittel Forsch Hung, 1995(1) - Zijlstra FJ: Mediators Inflamm, 2003(2) - Linde K: BMC Complement Altern Med, 	<ul style="list-style-type: none"> -> - It is more effective than Sham treatment. - Effectiveness is increased in combination with pharmacological treatment and other such treatments.

The above suggests that the mitigation of symptoms specific to connective tissue diseases could be expected to improve QOL. However, as with reports on RA, there are no reports that mention the corrective effects on autoimmune abnormalities or anti-inflammatory actions, and acupuncture and moxibustion therapy is regarded merely as a type of symptomatic treatment.

2. Comparative tests (Table 17)⁶⁾

As with RA, reports show that acupuncture and moxibustion therapy is effective compared to sham treatment, or more effective when used in combination with pharmacological treatment than such treatment administered alone, or in combination with exercise therapy. They thus indicate that mitigating symptoms specific to connective tissue diseases could improve QOL. However, compared to RA, there are few papers on respective diseases, and the accumulation of EBM is sought in the future.

and moxibustion therapy. However, its effects can be roughly classified into four categories—(1) mitigation of joint pain and other such pain; (2) functional improvement, including improvement of the range of joint motion and ADL; and (3) maintenance of favorable general conditions through improvement of stiff shoulders, lower back pain, and poor circulation. This suggests the possibility of acupuncture and moxibustion therapy contributing to QOL improvement among patients of RA and connective tissue diseases⁶⁾.

However, many reports lack any specific mention of conditions, such as the degree of disease activity or functional disorder, or of evaluation methods. Therefore, it is hereafter necessary to establish a research design by assessing patients' conditions and examining the expected effects of combining existing pharmacological treatments with acupuncture and moxibustion therapy using a standard evaluation method. It is thought that cooperation with medical institutions and joint

Table 17 Reports on connective tissue diseases other than RA

	Author	Patients	Treatment/site	Evaluation	Effect
Ankylosing spondylitis	Jia J, et al: J Tradit Chin Med, 2006	30	Moxibustion RCT	CRP, ESR VAS Chopart	More effective than control
	Bai WJ, et al: Zhongguo Zhen Jiu, 2006	60	Acupuncture RCT	VAS Exercise therapy	Effective when combined with exercise therapy
Systemic scleroderma	Maeda M: J Dermatol Sci, 1998	11	Electric acupuncture CCT	Endothelin 1	Vasodilating action is observed
Systemic lupus erythematosus	Kung YY: Am J Chin Med, 2006	24	Moxibustion RCT meridian, san yin jiao	Immunological tests	More effective than control
Behçet's disease	Yu P, et al: J Tradit Chin Med, 2003	46	Acupuncture RCT	Antinuclear antibody	More effective than control

D. Effects and Possibilities of Acupuncture and Moxibustion Therapy on RA and Connective Tissue Diseases

As RA and connective tissue diseases are a large group of diseases, it is hardly possible to make a sweeping generalization of the effects of acupuncture

studies with medical specialists are indispensable toward this end.

Additionally, most RCT and review reports contain information on comparisons with placebos and results of examinations of effects when used in combination with pharmacological treatment. While

a small number of papers show the effectiveness of acupuncture and moxibustion in relieving pain, improving functional disorders and maintaining favorable general conditions for QOL improvement, there were also papers that claim no significant difference, and there were systematic reviews that make many critical comments about research design, evaluation and other such methodologies. At present, there are few clinical reports about anti-inflammatory actions and corrective effects on autoimmune abnormalities (Table 18).

the theory of cytokine (TNF α , IL-10, INF) control by the interaction of neuropeptides and β -endorphins.

The majority of animal experiments looks at acute effects obtained from one stimulus, so it is necessary to hereafter examine the effect of sustainable stimuli on the immune system, but they suggest the possibility that pain relief and functional improvement, which are clinical effects on inflammatory diseases, are results of the anti-inflammatory actions of acupuncture and

Table 18 Current state and possibilities of acupuncture and moxibustion for connective tissue

Treatment	(1) Stimulus site	<ul style="list-style-type: none"> • Meridians must be selected in accordance with the symptoms of each disease
	(2) Piercing depth	<ul style="list-style-type: none"> • Unknown
	(3) Treatment frequency	<ul style="list-style-type: none"> • Frequency cannot be determined, but the longer the treatment period, the more manifest the effect becomes.
	(4) Treatment method	<ul style="list-style-type: none"> • Greater effects can be expected in combination with a drug. • Long-term treatment tends to produce greater effects. • There is the possibility that moxibustion is effective.
Future issues	<ul style="list-style-type: none"> • Establishment of a research design that also takes into consideration anti-inflammatory actions and corrective effects on immunological abnormalities • Examination of outcomes that take into consideration such conditions as disease activity and functional disorders 	

Meanwhile, in basic studies based on animal experiments (Table 19), some reports were found that suggest anti-inflammatory actions. The mechanism is explained by a number of theories, including the theory that acupuncture and moxibustion (mainly moxibustion) stimulus on adjuvant arthritis controls arthritis through a T-cell and neutrophil-mediated immunological mechanism; the theory of immune function regulation by neuropeptides such as α -melanocyte stimulating hormones that are secreted by the pituitary gland; the theory of indirect immunosuppression via sympathetic nerves; and

moxibustion stimulus.

Based on the results of basic research also in clinical disciplines, future reports are awaited that deal with how to evaluate and intervene with chronic inflammatory autoimmune diseases, which are a condition of connective tissue diseases.

As discussed above, acupuncture and moxibustion therapy may be effective against pain and functional disorders of RA and connective tissue diseases, but as there is lack of strong evidence, it is necessary to conduct evidence-based clinical research that also includes an examination of its anti-inflammatory actions in the future.

Table 19 Basic research on acupuncture and moxibustion stimuli

Reports of basic studies that suggest anti-inflammatory effects		
Matsukuma et al J Jpn Soc Balneol Climatol Phys Med, 2005 (3)	Rat with adjuvant arthritis Moxibustion on stomach meridians (9 times in 4 weeks)	The increase of T cells (CD4 ⁺ T) was controlled. The number of neutrophils decreased. Anti-inflammatory effects were observed.
Fang JQ, et al. In Vivo, 1998 (12)	Rat with arthritis Moxibustion on stomach meridians (15 times in 30 days)	The increase of anti-type II collagen antibodies was controlled. Anti-inflammatory actions were observed.
REVIEW Azumaya et al. Zensin Journal, 2006 (5)	Examination of 94 references It is a fact that acupuncture and moxibustion stimulus directly and indirectly affects immunological parameters of the immune system, but universality and reproducibility are issues to be addressed in the future.	

- Control of inflammatory cytokines by neuropeptides such as α -melanocyte stimulating hormones
- Immune cell adjustment by increased production of glucocorticoid by the adrenal gland
- Indirect immune function regulation by somatic reflection of the immune system via sympathetic nerves
- Control of cytokines (TNF- α , IL-10, INF) by the interaction of neuropeptides and β -endorphins

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Clinical Report 1 (Acupuncture)

Acupuncture Treatment for Irritable Bowel Syndrome (IBS-D): A Case Report

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Summary

This case study report introduces how acupuncture treatment on an IBS-D patient led to an improvement in stool form and health-related QOL.

Case: 75-year-old man.

Chief complaint: Diarrhea. The patient has been experiencing frequent symptoms of diarrhea since early in life, but the symptoms worsened from around a year ago, so he visited the hospital, where he was diagnosed with irritable bowel syndrome (IBS). His condition improved temporarily by taking an internal medicine, but because continuous use of the medicine caused constipation and nausea, the internal medicine was discontinued, and his doctor referred him to acupuncture treatment. As a subjective symptom, the patient mostly passes watery stool and loose stool on rare occasions. He defecates three to four times a day. He has discomfort in his abdominal region, and tends to accumulate gas. His diarrhea symptoms intensify when he consumes irritating foods such as chocolate, spicy foods, and alcohol. The progress of treatment was evaluated using a stool diary that contains a record of the patient's daily bowel movements, and also by SF-36.

Result: The patient's stool mostly changed from watery to loose stool from around two weeks of receiving acupuncture treatment. In the third week of treatment, he produced regular stool once. In the eighth week, the frequency of watery stool decreased and that of loose stool increased. The patient's SF-36 subscale score increased in the tenth week of treatment compared to his initial visit before treatment.

Observation: With IBS, it is reported that improving QOL is extremely important, even if no

significant change is observed in stool form. Judging from the result of the above case example, it is thought that acupuncture treatment is effective in achieving a slight improvement in stool form and improving health-related QOL in IBS-D patients.

Keywords: Acupuncture, irritable bowel syndrome, diarrhea-predominant, SF-36, QOL

1. Introduction

Irritable bowel syndrome (IBS) is a functional disease that is accompanied by bowel movement disturbance and discomfort or pain in the abdominal region, and causes a marked decline in QOL. It occurs commonly, and is prevalent at a rate of around 15% among the general population in developed countries^{1) 2)}. Acupuncture treatment is rendered with the aim of regulating bowel movement and mitigating the various physical symptoms of bowel movement disturbance³⁾. In recent years, the effectiveness of acupuncture treatment has been reported in a number of clinical studies^{4) 5)}, but they do not discuss its effects according to the subtype of stool forms. Based on the understanding that reporting on the clinical results of acupuncture treatment by subtype would benefit clinical studies of acupuncture treatment, this paper introduces a case example in which acupuncture treatment was shown to be effective against diarrhea-predominant IBS.

2. Case example

1) Case example: 75-year-old man (height 165cm; weight 49kg; BMI 18.0; slender)

2) Chief complaint: Diarrhea

3) History of present illness:

The patient has been experiencing frequent symptoms of diarrhea since early in life, with the symptoms often intensifying during summer.

X-31 years: A constant intake of alcohol and spicy foods aggravated the patient's diarrhea symptoms to the point that he developed a hemorrhoid, so he consulted a local doctor, who diagnosed him with

anal fistula. The patient was prescribed an ointment, and the symptoms abated, but thereafter, he suffered diarrhea whenever he ate irritating foods, and tended to experience a prolapsed hemorrhoid when he strained.

X-4 years: The diarrhea symptoms worsened, so the patient received a colon fiberscope inspection at a local proctology hospital, but no organic disturbance was found. The patient had been taking an antifatulent when his diarrhea symptoms worsened, but stopped taking it when he began to experience stomach pain.

X-1 year: The diarrhea symptoms worsened, so the patient consulted a hospital, where he was diagnosed with irritable bowel syndrome. He was prescribed Irribow tablet, albumin tannate, and Coronel, and the symptoms abated. However, continued use of these drugs caused constipation and nausea, so the patient stopped taking them after six months.

X: The patient's diarrhea and prolapsed hemorrhoid worsened with an excessive intake of chocolate, so the patient visited our Center for Integrative Medicine. He was prescribed Kampo medicine (Tsumura No. 3 Otsujiyu and Tsumura No. 32 Ninjinto) and Bio-Three powder, but stopped taking them because they made him feel poorly. At the request of the Kampo doctor, he agreed to receive acupuncture treatment.

4) History of past illnesses: None in particular

5) Social history:

The patient has engaged in bicycle sales for a long time. Even after retiring, people in his neighborhood sometimes come to see him to have their bicycles repaired.

6) Present symptoms:

(1) Subjective symptoms: The patient defecates three to four times a day, but his stool is mostly watery and sometimes loose. He has discomfort in his abdominal region, and tends to accumulate gas. His diarrhea symptoms intensify when he consumes irritating foods such as chocolate, spicy foods, and alcohol. He always experiences a prolapsed hemorrhoid

whenever he defecates. He also experiences a prolapsed hemorrhoid sometimes when he urinates. For this reason, when he has an urge to defecate, he frequently rushes to the bathroom with his hand on his anus. He also prolapses when engaging in standing work for a long time or when walking.

(2) Objective findings: In a palpation examination, strong muscle tone was found in the abdominal rectus muscle. There were chills in the feet. Tenderness was found from the patient's chest to the erector spinae muscle. The tenderness is felt more strongly on the left side. There is no left-right difference in the dorsal artery of the patient's feet and posterior tibial artery, and both are normal.

7) Evaluation method:

The patient was asked to keep a stool diary and record stool forms and daily bowel movements. SF-36 was also used for a comprehensive evaluation of health-related Quality of Life (QOL). It is composed of 36 items in 8 subscales, namely physical functioning (PF), role-physical (RP), body pain (BP), general health (GH), vitality (VT), social functioning (SF), role-emotional (RE), and mental health (MH)⁶. The higher the scores of each subscale means the better the patient's condition. The evaluation was performed at the patient's initial visit, and five and ten weeks after commencement of treatment.

8) Acupuncture treatment:

The following treatment was provided at an interval of once a week, with the aim of mitigating the patient's diarrhea symptoms and prolapsed hemorrhoid and maintaining his health.

Needle retention (length 40mm; diameter 0.16mm; stainless steel needles) for 10 minutes on Zhongwan (CV12), Qihai (CV6), Tianshu (ST25), Dadu (SP2), Shangqiu (SP5), Sanyinjiao (SP6), Taichong (LR3), Dachangshu (BL25), Shenshu (BL23), Weishu (BL21), and Sanjiaoshu (BL22)

3 bulb moxa on Sanyinjiao (SP6), 7 heat transmitting moxa on Baihui

3. Result

1) Stool form

From around two weeks after commencement of acupuncture treatment, the patient's stool mostly changed from watery to loose stool. He also produced regular stool once in the third week of treatment. However, from the fourth week, watery stool reappeared frequently. In the eighth week, the watery stool decreased, and the patient mostly passed loose stool. His urination frequency also decreased.

2) Health-related QOL

At the time of his initial visit, all eight of the patient's subscale scores fell below the Japanese standard. In the fifth week, MH increased by 5 points. In the tenth week, all subscale scores increased, and an improvement in QOL was seen (Figure 2). It is noteworthy that the scores for RP, SF, RE and MH surpassed the Japanese standard.

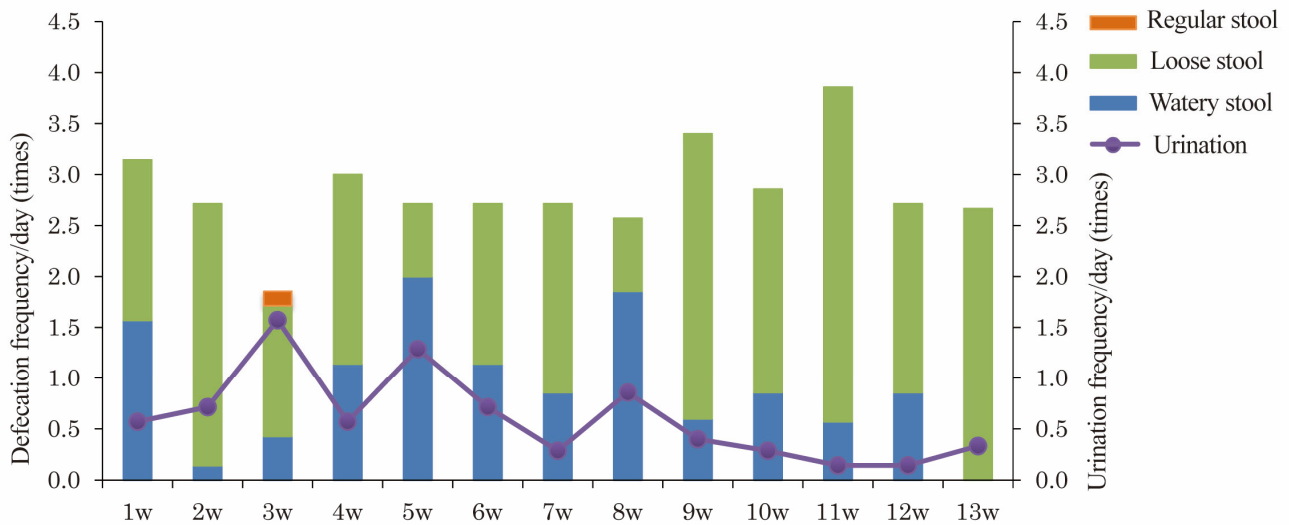


Figure 1: Daily defecation frequency, stool form and urination frequency

Figure 1 shows weekly average defecation and urination frequencies based on a record of daily

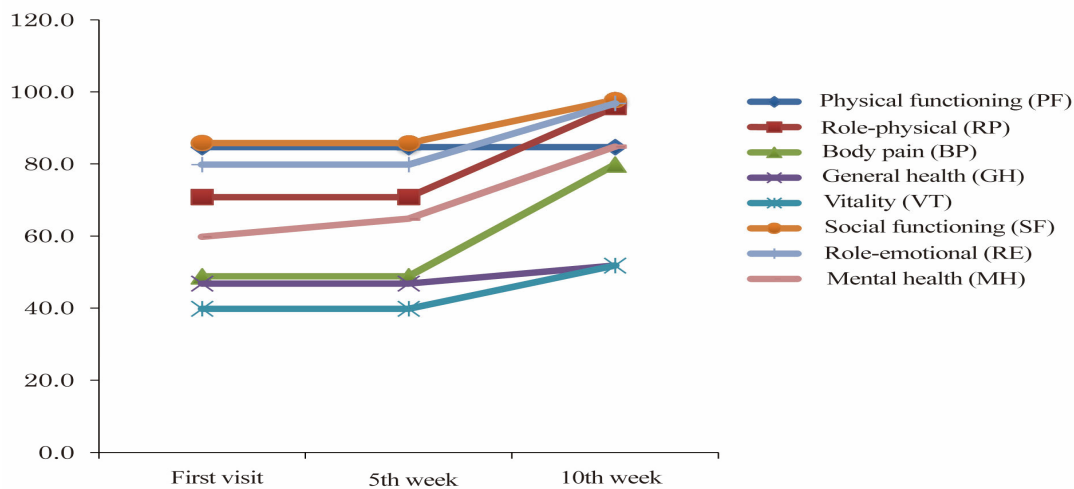


Figure 2: SF-36

Figure 2 shows the scores of the eight subscales of SF-36. An improvement was observed in the 10th

4. Observations

1) IBS pathology and this case example

Based on the Rome III diagnostic criteria, IBS is classified as a disease in which abdominal pain or discomfort in the abdominal region occurs for more than three days in a month within the latest three months, and accompanies at least two of the following three conditions: the abdominal pain or discomfort in the abdominal region (1) is mitigated by defecation, (2) is brought on by a change in defecation frequency, or (3) is brought on by a change in stool form (appearance). IBS is furthermore classified into four subtypes using the Bristol Stool Form Scale: (1) constipation-predominant IBS (IBS-C), (2) diarrhea-predominant IBS (IBS-D), (3) mixed IBS (IBS-M), and (4) unsubtyped IBS (IBS-U)^{7) 8)}. The IBS case example introduced here is classified as IBS-D, as the patient's stool is mostly watery stool.

Generally, the pathophysiology of IBS accompanying abdominal pain, abdominal discomfort and bowel movement disturbance falls into a negative cycle by a dysesthesia in the digestive tract, dyskinesia or psychological disorder such as depression and anxiety, via gut-brain interaction^{9) 10)}. Additionally, IBS undermines QOL²⁾. In the case example introduced here, SF-36 evaluation revealed a decrease in QOL.

2) Treatments for IBS and acupuncture treatment

Diarrhea-predominant IBS is commonly treated using a serotonin 5-HT₃ receptor antagonist. As side effects, it sometimes causes thirst, nausea in some instances, vomiting and constipation. In the case example as well, symptoms of side effects appeared, and the internal medication was stopped. There are also patients who refuse Western medical drug treatment because of the symptoms that appear other than their chief complaint. Meanwhile, acupuncture and moxibustion treatment have few side effects, and imposes minimum burden on the patient's body. For this reason, patients with a

chronic illness can receive acupuncture treatment on a continuous basis.

In this case example, acupuncture treatment increased the rate at which the patient's stool form changed from watery to loose stool. His urination frequency also decreased, but he hardly produced regular stool. At the same time, however, the eight subscales of SF-36 all increased, indicating acupuncture treatment's contribution to improving QOL. Furthermore, the acupuncture treatment produced no adverse events. Matsumoto et al.¹¹⁾ report that in acupuncture treatment against IBS, improving QOL is essential, even if no significant change is observed in stool form. From the result of the case example, it is thought that providing acupuncture treatment is effective in achieving a slight improvement in stool form and improving health-related QOL in IBS-D patients.

In recent years, there have been a number of clinical studies⁴⁾ that show the effectiveness of acupuncture treatment in improving QOL among IBS patients and basic studies^{12),13)} on the mechanism of the effect of acupuncture. However, at the same time, systematic reviews conclude that there are no rational grounds for supporting the use of acupuncture treatment to treat the symptoms of irritable bowel syndrome¹⁴⁾. As most clinical studies that have been conducted to date have been small in scale, it is necessary to hereafter examine the effectiveness of acupuncture by conducting a large-scale clinical study and performing an analysis according to severity, subtype, and other such factors.

5. Conclusion

Acupuncture treatment applied to a diarrhea-predominant IBS patient led to a slight improvement in stool form and an improvement in health-related QOL.

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Clinical Report 2 (Kampo Medicine)

Case Studies from Ehime Prefectural Central Hospital (3)

– *From the Rural Bedside to the Global Podium* –

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Type 3 Cases

The side effects of Western medical treatment is alleviated when combined with Kampo treatment

[Case 9 (Dr. Shimizu's case)]

Effective administration of Bofutsushosan for medication overuse headache (MOH) and premenstrual edema in a 28-year-old woman

[Chief complaint]

Headache, edema

[History of present illness]

The patient began to take loxoprofen sodium hydrate for menstrual pain from around the age of 20. About two years ago, she began to develop a headache when the weather was poor. In the beginning, her condition improved with loxoprofen sodium hydrate, but the frequency of her headache gradually increased, such that she began to experience daily headaches. Loxoprofen sodium hydrate no longer worked, so she began to take diclofenac sodium when the pain was intense. Since a year ago, the patient has been experiencing a condition in which her eyes become swollen, she cannot wear her ring, and she feels fatigue due to edema in her legs during the period from ovulation to the third day of menstruation. A local doctor prescribed Goreisan extract and Tokishakuyakusan extract, but neither had any effect. The patient was also prescribed furosemide at times when her edema flared up. Furosemide was effective in the beginning, but because it gradually lost its effectiveness, she was prescribed increased amounts. Still, no satisfactory progress was seen, so the patient visited our department.

[Life history]

Occupation: Care worker; Smoking: 15 × 13 years;

Drinking: Around twice a week

[Oral medicine]

Diclofenac sodium, furosemide, brotizolam

[Physical health]

The patient has a tendency for her hands and lower body below her hip to become cold. She has difficulty starting urination. As she experiences no bowel movement for two, three days, she takes a laxative. She does not have a weak stomach. Her legs swell from the date of ovulation to the first day of menstruation.

[Present symptoms]

Height 162cm; weight 53kg; BMI 20.2

Dark red around the eyes. Tongue: slight white coating, some teeth marks. No varicosis.

Pulse: Between floating and sunken, rather rapid.

Abdominal symptoms: No chest side painfulness. No epigastric discomfort or resistance. Pulsation of abdominal aorta. Splashing sound in epigastric region.

Resistance and sharp tenderness in left iliac region. Lower abdominal resistance and fullness.

[Progress]

The patient was prescribed 7.5g of Bofutsushosan extract. By her return visit two weeks later, her headache had completely disappeared. She still had some edema before and after ovulation, but it had mitigated compared to before. She was able to open her eyes, and her sleep improved. She noted that her urine had become yellow.

[Observations]

This was a case in which a tendency to develop edema and headaches occurred as a side effect of the prolonged use of medicine as standard treatment, but a diuretic was not effective.

Bofutsushosan comprises 18 different drugs. Its crude drug ingredients reveal a combination of such acrid-warm herbs relieving superficies as Mao (ephedra), Shoga (ginger), Bofu (Saposhnikovia divaricate), and Keigai (schizonepeta); the cold-pungent diaphoresis

Hakkai (peppermint); Rengyo (forsythia fruit); the heat dissipating drug Sekko (gypsum); in addition to Sanshishi (gardenia fruit), Ogon (Baikal skullcap), Daio (rhubarb), Bosho (mirabilite), and Kasseki (talc). It can be said to be a front-rear double solution medicine for exterior cold and interior heat and for exterior heat. From a different perspective, it can also be said to be a medicine for edema caused by heat pattern, as Mao, Sekko, Kasseki, Byakujutsu, Hakka and Bofu induce diuresis to alleviate edema. Furthermore, the addition of laxatives such as Daio and Bosho helps remove interior heat, and is thus suited to people who tend to develop indigestion.

In the above case, the problem involved headaches and premenstrual edema caused by the overuse of NSAIDs. The patient was not obese, but she had constipation and poor urination, and reacted poorly to medicine. These symptoms suggested a decline in metabolic and excretory functions caused by indigestion. Therefore, instead of prescribing simple ingredient drugs such as Goreisan and Tokishakuyakusan, the patient was successfully prescribed Bofutsushosan, which has the effect of dissipating heat, inducing diuresis, purging the bowel, and providing front-rear double solution.

Conference Report

A Letter from the 10th International Association of Gerontology and Geriatrics (IAGG)

– *Asia/Oceania Regional Congress in Chiang Mai, Thailand*

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1. IAGG and the 10th IAGG Asia/Oceania Regional Congress

The IAGG (International Association of Gerontology and Geriatrics) was originally established in Belgium in 1950. The purpose is to improve the quality of life (QOL) of elderly people all over the world by sharing study results on health, welfare, and medical science. The First International Congress of Gerontology was held in Liège, Belgium, where it gathered 113 gerontologists from 14 countries, in July 1950. The Association's name, which was originally known as the International Association of Gerontological Societies (IAGS), was changed in the same year to the International Association of Gerontology (IAG). In 2004, the IAG's Council of Directors decided to

include “geriatrics” in the name, and the IAG became the International Association of Gerontology and Geriatrics (IAGG) for the 18th World Congress in 2005. The assignment of the IAGG is to promote the highest levels of accomplishment in gerontological research and training worldwide, and to interact with other international, inter-governmental and non-governmental organizations in the promotion of gerontological interests. The IAGG chases these activities with a view of improving the highest QOL and well-being of human beings as they experience “aging”. The last 65 years has seen the IAGG develop from a relatively small organization to a major international community represented today in 64 different countries, with a combined membership of over 45,100 people (1).

The 10th IAGG Asia/Oceania Regional Congress took place in Chiang Mai, Thailand, at the International Convention and Exhibition Centre Commemorating His Majesty's 7th Cycle Birthday Anniversary from October 19 – 22, 2015. It was hosted by Thai Society of Gerontology and Geriatric Medicine. Co-hosted by National Older Person Commission (Thailand), the Royal College of Physicians of Thailand, the Royal College of Dental Surgeons of Thailand, and Help Age International East Asia and the Pacific. It was supported by The Thailand Convention and Exhibition Bureau (TCEB), and Thai Airways International (2). The congress and the anniversary activities were rich and diversified in contents. Theme of the congress was “Healthy Aging Beyond Frontiers” (3). Sub-themes of the congress were as follows: “Clinical Medicine”, “Health Promotion for Active Aging”, “Biological Science”, “Molecular Biology as Possible Enhancers for Healthy Ageing and Longevity, Social & Behavioral Science”, “Active and Dignified Ageing”, “Social Research & Planning Scientific”, and “Social Research and Policy Response for Ageing beyond Frontiers”. Speakers were government officials and administrators of medicine and welfare and scholars of teaching and

research institutes from all over the world. The conference was attended by more than 1100 researchers and physicians from all over the world (4) – primarily from Asia/Oceania – who exchanged opinions and presented studies on diverse geriatric medical research fields, of which 7 speakers for Plenary Lecture and 64 invited speakers, with 540 sessions of oral presentations and 128 sessions of symposiums.

2. Highlights of the Conference

At “Falls and Musculoskeletal Medicine” section, Dr. James.K.H. Luk, Fung Yiu King Hospital in Hong Kong, has made a presentation on “Fall Prevention in Older People – What We Know and What We Do Not”, Dr. Edward Leung, Hong Kong Association of Gerontology in Hong Kong, has introduced on “Advances in Management of Hip Fractures in Older People”, Dr. Atsushi Harada, National Center for Geriatrics & Gerontology in Japan, has made a lecture on “Osteoporosis and Sarcopenia”, and Dr. Ding-Cheng (Derrick) Chan, National Taiwan University Hospital Chu-Tung Branch in Taiwan, has made a presentation on “Osteoporosis Services in Taiwan”.

At “Mental Health” section, Dr. Leon Flicker, The University of Western Australia in Australia, has introduced on “Diagnosis in Dementia”, Dr. Feng-Hwa Lu, National Cheng Kung University in Taiwan, has made a lecture on “Diagnosis of Anxiety and Depression in Older People”, and Dr. Mark Chan, Tan Tock Seng Hospital in Singapore, has made a presentation on “Update on Delirium”.

At “Frailty and Metabolic Disorders” section, Dr. Bernard Kong, Pamela Youde Nethersole Eastern Hospital in Hong Kong, has introduced on “Prognosis and Management of Hypoglycemia in Elderly”, Dr. Philip Poi, University of Malaya in Malaysia, has made a lecture on “Long Term Outcomes for Fallers Attending the ER”, and Dr. Shelley de la Vega, University of the Philippines College of Medicine in Philippines, has made a

presentation on “Older Persons in Natural Disasters”.

At “Stroke and Parkinson’s Disease” section, Dr. Piu Chan, Xuanwu Hospital of Capital Medical University in China, has introduced on “Update in Parkinson’s Disease”, Dr. Maw Pin TAN, University of Malaya in Malaysia, has made a lecture on “Fear-Of-Falling in Stroke and Parkinson’s disease”, and Dr. Siti Setiati, Universitas Indonesia in Indonesia, has made a presentation on “Stroke Prevention in Older People”.

3. The submitted symposium of “Traditional Asian Medicine for Geriatrics”

Here we will focus on the reports of the submitted symposium of “Traditional Asian Medicine for Geriatrics” only because of shortage of space. Dr. Koh Iwasaki prepared the symposium and was the chairperson.

Dr. Tse-Hung Huang (Department of Chinese Medicine, Chang Gung Memorial Hospital, Keelung and Graduate Institute of Clinical Medical Sciences, Chang Gung University, Taoyuan, Taiwan and Graduate Institute of Integration of Traditional Chinese Medicine with Western Nursing, College of Nursing, National Taipei University of Nursing and Health Sciences, Taipei, Taiwan) has introduced “The application of traditional health exercises to improve the quality of life in old age”. Dr. Huang and his colleague’s findings show that *Tai-Chi-Chuan* alleviated anxiety and decreased the risks for cardiovascular disease including blood pressure, Anxiety Index: The Beck Anxiety Inventory, Body Mass Index and Waist Circumference. He has shared the way of thinking and the methods of prevention and treatment of chronic musculoskeletal conditions with traditional health exercises, which is an appropriate program to improve the QOL.

Dr. Takehiro Numata (Department of Education and Support for Community Medicine, Tohoku University Hospital, Sendai, Japan) has introduced “A Randomized Controlled Trial using Kampo

Medicine *Daikenchuto* on Functional Constipation in Poststroke Patients ". Dr. Numata and his colleagues investigated the efficacy and safety of *daikenchuto* (大建中湯^{JP}, Major Middle-Strengthening Decoction) in patients suffering constipation as a complication of cerebrovascular disease: Thirty-four subjects were randomly allocated into the *daikenchuto* or control group; both groups received conventional constipation therapy, but the *daikenchuto* group were also administered 15 grams of *daikenchuto* over 4-week. The Constipation scoring system (CSS) was recorded before and after a 4-week observation period, and the Gas volume score (GVS) was calculated using simple abdominal radiograph of supine position. The CSS score improved significantly in the *daikenchuto* group compared to control: *daikenchuto* administration improved constipation of poststroke patients. The GVS was also significantly reduced in the *daikenchuto* group compared to the control: *daikenchuto* administration reduced intestinal gas volume.

Dr. Kazunari Ozaki (Department of Geriatric Medicine, Itami City Hospital, Itami, Hyogo, Japan) has introduced "Noninvasive Evaluation of Frailty in Elderly Persons with Heart Failure: The correlation between *Kampo*-scores and "The timed 'Up and Go' Test" and cardiovascular scores with echocardiography". The timed "Up and Go" Test (TUG, Podsiadlo1991) is a widely used performance-based measure of functional mobility in community-dwelling older adults. Dr. Ozaki and his colleagues studied 40 outpatients at the hemodialysis unit with simultaneous *Kampo*-scores and echocardiographical indices with echocardiography and the TUG. They measured and compared *Kampo* scores and echo-cardiographical indices and the TUG by linear regression. According to their study, some of the *Kampo*-scores (*Suitai*-score (or water stagnation score) and *Qi* (vital energy)-deficiency-score) had high positive correlation to the TUG. E/Ea (E/e') had high positive correlation to the TUG.

Suitai-score had strong positive correlation to E/Ea. They suggested that *Kampo*-scores especially *Suitai*-score and *Qi*-deficiency-score, can be used to define clinical assessment of frailty in hemodialysis outpatients with chronic heart failure.

Dr. Koh Iwasaki (Center for Traditional Asian Medicine and Home Healthcare, Southern Tohoku General Hospital, Iwanuma, Japan) has introduced "Systemic Review and Providing Guideline of Traditional Asian Medicine for Elderly". Dr. Iwasaki and Prof. Shin Takayama (Department of Education and Support for Regional Medicine, Department of *Kampo* Medicine, Tohoku University Hospital, Sendai, Japan) investigated whether the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system is available to evaluate Traditional Medicine or not, and presented their trial in updating the guideline of Japan Geriatrics Society treated Traditional Chinese Medicines. The guideline of Traditional Asian Medicine (TAM) for elderly was established and 5 herbal recipes were listed as "Screening Tool to Alert doctors to Right Treatment (START)" while recipes containing 5 herbs were listed as "Screening Tool of Older Person's Prescriptions (STOPP)".

Dr. Koh Iwasaki has also introduced Prof. Shin Takayama's work, "The role of *Kampo* medicine in an aging society: experience with *Kampo* treatment after a natural disaster". Prof. Takayama and his colleague's findings show that *Kampo* medicine has been helping some of the tsunami/ earthquake survivors.

4. Concluding remarks and about the upcoming congresses.

All the participants including those attendee who were at the submitted symposium of "Traditional Asian Medicine for Geriatrics", agreed that the symposium was an international academic event of Gerontology and Geriatrics with high level and standard. Traditional Asian Medicine including *Kampo* medicine would be helpful for Gerontology and Geriatrics. The researchers and physicians of

the Traditional Asian Medicine have obligation to improve the quality of life (QOL) of elderly people all over the world by sharing study results on health, welfare, and medical science. The submitted symposium this time was the first trial to treat Traditional Asian medicines in IAGG. One of the participants commented that trials of this kind should be held also in future.

The Gerontological Society of America (GSA) will be hosting IAGG's 21st World Congress in San Francisco, USA (July 23-27, 2017) ⁽⁵⁾. The theme of this future conference will be "Global Ageing and Health: Bridging Science, Policy, and Practice". In view of GSA's long experience in organizing key events and of the city's important congress facilities, IAGG 2017 will be sure not to dissatisfy.

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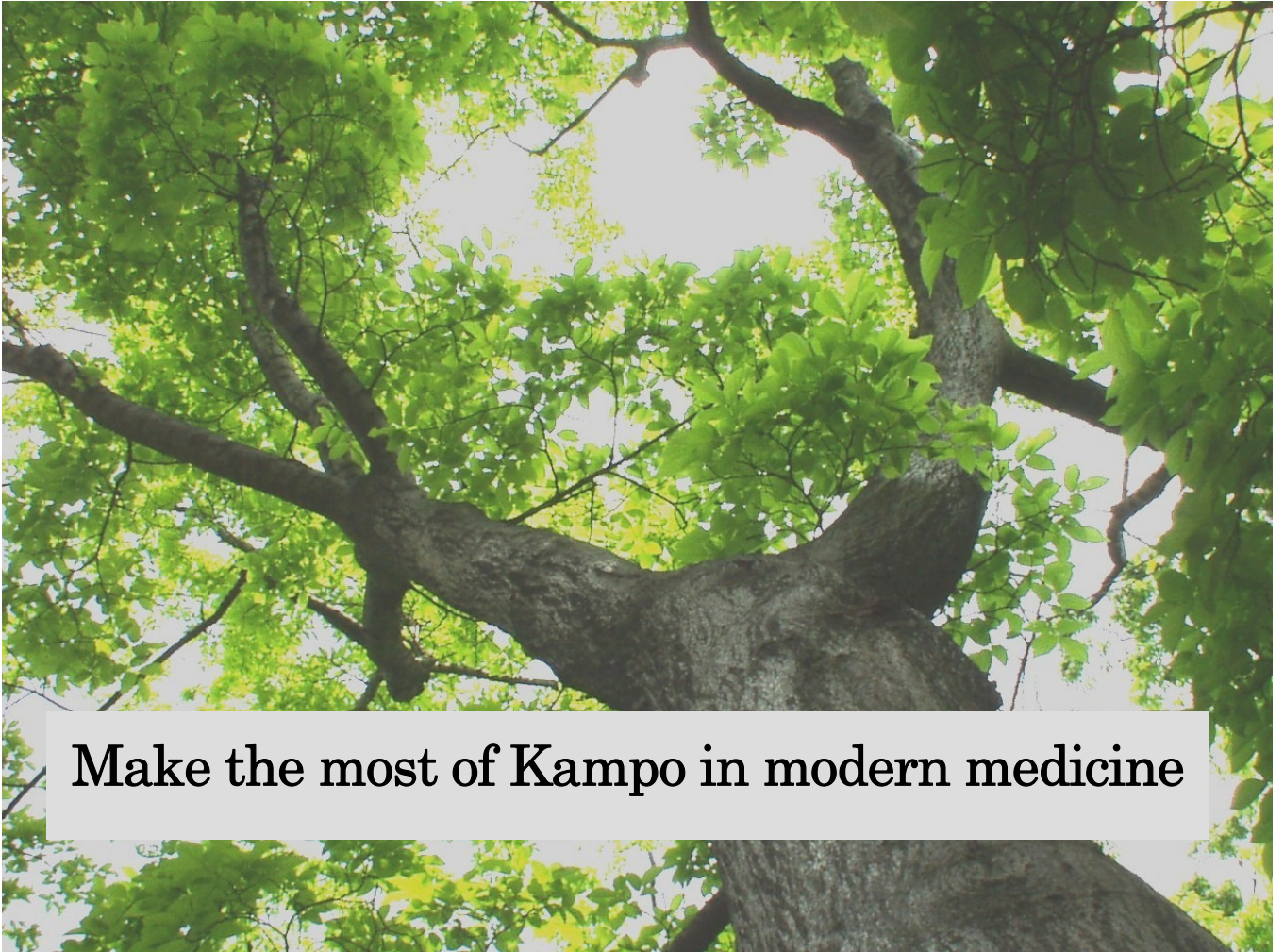
¹ <http://iaggchiangmai2015.com/overview/about-iagg/>
[the last date of access Nov. 21, 2015]

² <http://iaggchiangmai2015.com/overview/iagg-asia-oceania-2015/>
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⁴ <http://www.kampo-s.jp/magazine2/252/index3.htm>
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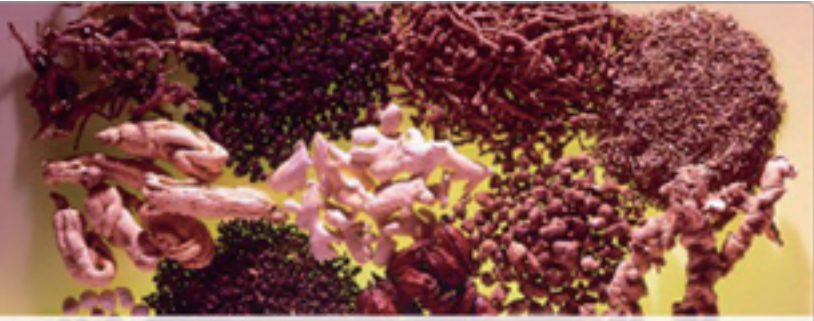
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