

INTERNATIONAL INSTITUTE OF HEALTH AND HUMAN SERVICES, **BERKELEY**

Volume 5, Number 1 · Spring 2010

Editorial

Acupuncturist Training - Present Situation and Initiatives Noboru Mitsuhata

Japanese Acupuncture - Current Research

Effects of Electroacupuncture Analgesia on Postoperative Pain after Abdominal Surgery and the Presence of Endogenous Analgestic Substances

Keisou Ishimaru

Kampo Medicine - Current Research

Effect of Goreisan on Chronic Subdural Hematoma Mitsusuke Miyagami

Clinical Report 1 (Japan)

A Case Report on Acupuncture Treatment for "Complex Regional Pain Syndrome (CRPS)" Shigeru Nakajima

Clinical Report 2 (Japan)

One Case that had Effect of Bakumondoto on Post Herpetic Neualgia caused by Yin Deficiency Mihoh Koga

Clinical Report 3 (Japan)

One Case that had Effect of Daibofuto on RA with High Level of Maniphalanx Deformation Hiromichi Yasui

Kampo Formula Development in Japan (1)

Otsujito ("B" Character Decoction) Hiromichi Yasui



A good motive creates a selfless devotion.

"I just want my customers to feel better, body and soul. Just to see their faces light up with hope and happiness, I'd do anything," remarks Masao Tsuji, President of Ominedo Pharmaceutical Industry Company. He visits various sites where raw herbs and substances for use in their Kampo products are picked. And he believes this is the tradition Ominedo had maintained for over a century now since the company was founded in 1900.

The same philosophy is applied in handling the numerous high-quality formulas created at their labs where highly advanced scientific and pharmacological researches are conducted. The company's state-of-the-art facilities that comply with GMP standards turn out various extracts to be incorporated into their pride products.

"Every merchandise is the by-product of our sincere devotion to delivering a lineup of products that not only work for the customers' body, but also bringing peace of mind as well," Tsuji concludes, "delivering the right product to customers who appreciate our knowledge and devotion is our ultimate goal."



Ominedo Pharmaceutical Industry Co., Ltd.

574, Nenarigaki, Yamatotakada-City, Nara 635-0051, Japan

URL: www.ominedo.co.jp Contact: info@ominedo.co.jp FAX (81) 745-23-2540

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

ASSOCIATE EDITORS

Shuichi Katai

Ibaraki-ken, Japan **Hiromichi Yasui** Tokyo, Japan

EDITORIAL STAFF

Akira Shimaoka Hiroshi Tsukayama Hitoshi Yamashita Naoya Ono Noboru Mitsuhata Yoshiro Sahashi

EDITORIAL BOARD

Denmei Shuto Hajime Haimoto Hideaki Yamaguchi Hidemi Takahashi Katsutoshi Terasawa Kazushi Nishijo Keigo Nakata Keishi Yoshikawa Koji Ebe Shohachi Tanzawa Tadashi Yano Takahisa Ushiroyama Tomomasa Moriyama Toshihiko Hanawa Yoichiro Ebe Yoshiharu Motoo Yoshiro Yase

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 5, Number 1 · Spring 2010

TABLE OF CONTENTS

1 Editorial

Acupuncturist Training – Present Situation and Initiatives

Noboru Mitsuhata

2 Japanese Acupuncture - Current Research

Effects of Electroacupuncture Analgesia on Postoperative Pain after Abdominal Surgery and the Presence of Endogenous Analgesic Substances

Keisou Ishimaru

6 Kampo Medicine - Current Research

Effect of Goreisan on Chronic Subdural Hematoma

Mitsusuke Miyagami

12 Clinical Report 1 (Japan)

A Case Report on Acupuncture Treatment for "Complex Regional Pain Syndrome (CRPS)"

Shigeru Nakajima

20 Clinical Report 2 (Japan)

One Case that had Effect of Bakumondoto on Post-Herpetic Neualgia caused by Yin Deficiency

Mihoh Koga

22 Clinical Report 3 (Japan)

One Case that had Effect of Daibofuto on RA with High Level of Maniphalanx Deformation

Hiromichi Yasui

24 Kampo Formula Developed in Japan (1)

Otsujito ("B" Character Decoction)

Hiromichi Yasui

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.

Editorial

Acupuncturist Training — Present Situation and Initiatives

The environment for acupuncture and moxibustion training in Japan changed significantly ten years ago this year. Until 2000, only 26 nationwide universities and vocational schools provided such training, and every year, around 2,200 applicants from a total of 2,700 passed the national exam required to practice acupuncture and moxibustion. Following a relaxation of regulations, thereafter, universities and vocational schools for acupuncturist training increased to 100 schools on a nationwide scale as of April 2010, and as many as 4,000 applicants from a total of 5,300 passed the national exam held in February 2010. This means that the increase in the number of educational institutions that train acupuncturists brought an almost two-fold increase in the number of qualified acupuncturists compared to ten years ago.

However, the change in the environment for acupuncture and moxibustion training generated a number of issues. One is the issue of employment after graduation, and the other is the decline in the technical level of practitioners.

Acupuncturists have the choice of going into private practice, but few people actually do so immediately upon graduation. Instead, most choose to receive practical training at an established clinic to first accumulate experience in treating patients. Under current circumstances, however, there are not enough clinics in Japan to provide employment to 4,000 acupuncturists per year. At the same time, many of these new acupuncturists need to acquire practical skills at a clinic and build up confidence to treat patients, because schools that have newly begun to offer acupuncture training tend to place emphasis on providing knowledge over technical skills in preparing students for the national exam, which does not include technical evaluation.

In response to this situation, the acupuncture and moxibustion industry in Japan established the Acupuncture and Moxibustion Medical Promotion Society in 2006 to take on various initiatives related to awareness raising of acupuncture and moxibustion, the study of acupuncture and moxibustion, and training of acupuncturists.

Under the theme of "awareness raising," the society engages in diverse activities to promote understanding of acupuncture and moxibustion in Japan, and under the "study" theme, it collects information about the treatments. For "training," the society endeavors to establish a training system for new acupuncturists who have acquired a license but whose skills level is still low. These activities are not expected to produce immediate results, but are gradually helping to transform the acupuncture and moxibustion industry in Japan.

Noboru Mitsuhata
Goto College of Medical Arts and Sciences
Advanced Course in Clinical Pedagogy
Tokyo Eisei Gakuen College

Japanese Acupuncture - Current Research

Effects of Electroacupuncture Analgesia on Postoperative
Pain after Abdominal Surgery and the Presence of Endogenous
Analgesic Substances

Keisou Ishimaru Faculty of Health Sciences, Ryotokuji University

Introduction

We investigated the effects of electroacupuncture through a systematic review of randomized controlled trials (RCTs) in postoperative pain. 1)

The results are based on fifteen RCTs comparing electroacupuncture with sham control in the management of acute postoperative pain.

The results included one Japanese study (RCTs) by Ishimaru et al (1999). 2-3)

We have previously reported electroacupuncture decreased the postoperative pain after abdominal surgery and significantly reduced the use of analgesic drugs, however, the mechanism of electroacupuncture analgesia has not been completely explained. In this study, The effects of surgical invasion and electroacupuncture serum beta-endorphin. analgesia on endogenous opioid peptide that is involved in analgesic action, and adrenocorticotropic hormone (ACTH) levels were evaluated.

Methods

Continuous frequency 3Hz electroacupuncture treatment was performed at acupuncture point LI4 (Hegu) and S36 (Zusanli) for 3 hours from 3 hours after the operation in 11 patients (electroacupuncture group). Another eleven patients not treated by non-electroacupuncture served as controls. Peripheral blood (5 ml) was collected before, during, immediately after operation and at 3 hour intervals thereafter until 12 hours after the operation, and serum beta-endorphin and ACTH levels were measured by radioimmunoassay (RIA).

Results

Surgical procedure and anesthesia time and changes in serum beta-endorphin and ACTH from

before operation until 12 hours after operation in the electroacupuncture group and non-electroacupuncture control group.

During the operations, both beta-endorphin and ACTH levels increased significantly. After the operations, these levels tended to gradually decrease to preoperative values, but the levels of serum beta-endorphin increased significantly again during the electroacupuncture treatment in the electroacupuncture group (Table 1.2.).

The degree of the postoperative pain in the electroacupuncture and non-electroacupuncture group and the consumption of the analysis drugs (Table 3.4.).

Analgesic drugs for postoperative pain were used in 10 of the 11 cases in the control non-electroacupuncture group (Table 4.), but were used only in 1 of the 11 cases in the electroacupuncture group (Table 3).

These results suggest that the beta-endorphin levels induced by electroacupuncture reduced the postoperative pain. The results also suggest that, even under general anesthesia, the surgical invasions appear to induce the central nervous to activate stress-induced analgesia.

Discussion

In these results, we found that electroacupuncture is effective for postoperative pain management, as demonstrated by a significant reduction of postoperative pain scores and endogenous opioids including beta-endorphins. From other studies, likewise electroacupuncture may reduce analgesic drugs usage in the early postoperative period. 4-9)

Some studies suggested that electroacupuncture mechanisms include activation of the endogenous pain inhibitory system, release of endogenous opioids including beta-endorphins, enkephalins, and dynorphins, and non-opioid substances such as serotonin, norepinephrine, adenosine A1 receptor.10)

Future studies (RCTs) should investigate electroacupuncture mechanisms given before or after surgery.

		Serum beta-endorphin pg/ml Serum ACTH pg/ml									
patients No.	age	sex	surgical procedure	duration of anesthesia (minutes)	before ope	during ope	after ope	3 hours EA	6 hours	9 hours	12 hours
1	67	F	choledochojejunostomy	220	3 55	41 370	47 150	10 90	8 70	10 50	10 50
2	71	M	colectomy	170	3	38 90	53 90	7 71	6 52	3 30	3 13
3	71	M	total gastrectomy	395	5 49	47 170	25 140	8 98	4 80	4 71	5 70
4	57	F	cholecystectomy	160	2 60	22 260	26 370	8 99	22 60	26 70	8 49
5	67	M	cholecystectomy	75	4 15	30 180	12 89	11 89	15 60	6	6
6	41	M	subtotal gastrectomy	175	7 28	44 350	32 380	11 40	28 30	18 27	7 28
7	57	M	subtotal gastrectomy	210	3 8	37 420	4 60	20 210	16 10	3 16	3 8
8	65	F	high anterior resection	166	5 45	66 790	24 270	9	15	16 8	4 10
8	88	M	miles operation and descending colostomy	225	2 90	62 580	46 540	22 190	33 60	46 40	14 60
10	82	F	subtotal gastrectomy	200	6 82	44 160	45 130	40 92	45 95	23 80	10 30
11	53	F	subtotal gastrectomy	166	4 20	64 320	46 540	22 90	33 60	40 40	14 60
65.3±	13.2 year	s		196.4±77.5	4.0±1.6 42.8±27.4	45.0±14.0 335.4±205.7	32.7±15.9 250.8±180.0	15.2±10.0 98.9±56.1	20.4±13.0 53.2±27.0	17.7±14.8 40.4±24.8	7.6±3.9 32.0±21.7

Table 1. Surgical procedure and anesthesia time and changes in serum beta-endorphin and ACTH from before operation until 12 hours after operation in the electroacupuncture group. Normal value: Serum beta-endorphin 1-10 pg/ml, Serum ACTH 5.5-50 pg/ml. EA: Electroacupuncture stimulation.

				Serum beta-endorphin pg/ml Serum ACTH pg/ml							
patients No.	age	sex	surgical procedure	duration of anesthesia (minutes)	before ope	during ope	after ope	3 hours	6 hours	9 hours	12 hours
1	63	M	subtotal gastrectomy	150	3 52	25 350	4 140	3 60	3 50	3 40	3
2	68	M	high anterior resection	225	3 37	35 190	9 90	8 90	3 63	3 55	3 38
3	70	М	sigmoidectomy	150	7 27	6 180	9	8 82	7 80	5 59	7 52
4	81	M	cholecystectomy	120	5 16	14 83	13 64	3 5	13	5	6 5
5	74	М	subtotal gastrectomy	215	6 35	16 110	20 160	8 19	8 14	8 12	9 17
6	71	М	low anterior resction	210	4	33	23	28	23	19	20
7	74	M	total gastrectomy	225	33 5 24	160 44 210	82 48 320	120 16 54	30 15 66	- -	- -
8	31	M	subtotal gastrectomy	180	5 19	34 640	33 450	6 18	7 24	6 28	5 19
8	80	F	cholecystectomy	50	3 31	4 45	8 75	3 18	3 10	3 16	3 31
10	69	M	subtotal gastrectomy and cholecystectomy	290	5 60	36 460	30 130	23 60	10 30	7 60	6 53
11	70	F	total gastrectomy	205	9 80	29 180	22 149	21 93	18 80	14 80	10 60
68.2	±13.4 year	rs		183.6±64.0	5.0±1.8 37.6±19.2	25.0±13.2 237.1±178.0	19.9±13.2 159.8±119.3	11.5±8.9 56.2±37.6	10.0±6.6 41.1±27.7	7.3±5.2 37.3±25.2	7.2±5.1 33.8±18.5

Table 2. Surgical procedure and anesthesia time and changes in serum beta-endorphin and ACTH from before operation until 12 hours after operation in the non-electroacupuncture group. Normal value: Serum beta-endorphin 1-10 pg/ml, Serum ACTH 5.5-50

		Postoperative	pain and the rel	ations of the us	e pain-killer
patients No.	after ope	3 hours EA	6 hours	9 hours	12 hours
1	2	2	1	0	0
2	2	2	1	1	0
3	2	2	0	0	0
4	2	2	0	0	0
5	1	1	1	0	0
6	2	2	1	1	0
7	2	2	3 Voltaren50mg	1	0
8	1	1	1	0	0
9	2	2	1	0	0
10	2	2	0	0	0
11	2	2	1	1	0

Table 3. The degree of the postoperative pain in the electroacupuncture group and the consumption of the analgesic drugs.

EA: Electroacupuncture stimulation.

The evaluation of the pain. 0:no pain, 1: movement pain, 2:rest pain, 3: use of the analgesic drugs.

		Postoperative	pain and the re	lations of the use p	ain-killer
patients No.	after ope	3 hours	6 hours	9 hours	12 hours
1	2	2	3 pentazocin 1A	1	0
2	1	1	1	1	1
3	2	2	3 voltaren 50mg	1	0
4	2	2	3 pentazocin 1A	1	0
5	2	2	2	3 voltaren 25mg	1
6	2	1	2	3 voltaren 25mg	1
7	1	3 pentazocin 1A	3 voltaren 25mg	2	2
8	2	2	3 voltaren 25mg	0	0
9	2	2	3 voltaren 25mg	0	0
10	1	2	3 voltaren 25mg	1	0
11	2	2	3 voltaren 50mg	2	2

Table 4. The degree of the postoperative pain in the non-electroacupuncture group and the consumption of the analgesic drugs.

The evaluation of the pain. 0:no pain, 1: movement pain, 2:rest pain, 3: use of the analgesic drugs.

Conclusion

Electroacupuncture treatment may be a useful complementary and alternative medicine for acute postoperative pain management.

Acknowledgements

This work was supported by a grant for scientific research from the Ministry of Education Science and Culture of Japan (0977076), 1998-1999.

References

- 1) Sun Y, Gan TJ et al: Acupuncture and related techniques for postoperative pain: a systematic review of randomized controlled trials. Brit J Anaesth. 2008;101:151-160.
- 2) Ishimaru K: Effects of acupuncture analgesia on post-operative pain after abdominal surgery and the relationship of endogenous analgesic substances. Meiji Shinkyu Igaku. *Bull Meiji Univ Orient Med.* 2000;26:11–22.
- 3) Ishimaru K, Imai K et al : Effects of acupuncture analgesia on post-operative pain after abdominal surgery using serum 8-endorphin and ACTH concentration as parameters. The Journal of the japan society of pain clinicians. 1999:1:6:10-16.
- 4) Wang B, Tang J et al: Effect of the intensity of transcutaneous acupoint electrical stimulation on the postoperative analgesic requirement. Anesth Analg. 1997;85:406-413.
- 5) Chen L, Tang J: The effect of location of transcutaneous electrical nerve stimulation on postoperative opioid analgesic requirement: acupoint versus nonacupoint stimulation. Anesth Analg. 1998;87:1129-1134.
- 6) Kotani N, Hashimoto H: Pre-operative intradermal acupuncture reduces postoperative pain, nausea and vomiting, analgesic requirement, and

- sympathoadrenal responses. Anesthesiology. 2001;95:349-356.
- 7) Lin JG, Lo MW: The effect of high and low frequency electroacupuncture in pain after lower abdominal surgery. Pain. 2002;99:509-514.
- 8) Sim CK, Xu PC: Effects of electroacupuncture on intraoperative and postoperative analgesic requirement. Acupunct Med. 2002; 20:56-65.
- 9) Wong RH, Lee TW: Analgesic effect of electroacupuncture in postthoracotomy pain: a prospective randomized trial. Ann Thorac Surg. 2006; 81:2031-2036.
- 10) Goldman N, Chen M et al : Adenosine A1 receptors mediate local anti-nociceptive effects of acupuncture. Nat Neurosci. 2010;13(7):883-8.

Kampo Medicine - Current Research

Effect of Goreisan on Chronic Subdural Hematoma
— From the Goreisan Symposium 2010"—

Mitsusuke Miyagami

Department of Neurosurgery and Rehabilitation,
Takenozuka Nohsinkei Rehabilitation Hospital

Sonoda Daiichi Hospital

Introduction

Chronic subdural hematoma (hereafter CSDH) is a gradual accumulation of blood below the dura mater over more than three weeks, generally after minor head injury. The hematoma encapsulated, in which old liquefied blood is found. In recent years, increases in the number of the elderly and image analyzing examinations such as CT/MR images have contributed to an improved detection of CSDHs, for which surgery is a recognized and established method of treatment. However, even if CSDH shows up on CT images, some patients do not exhibit the signs and symptoms indicative of CSDH or merely show very mild symptoms. There are also patients who do not desire an operation. Moreover, the recurrence of CSDH after surgery occurs in 10 to 20%12,19,23 of patients. Patients who are prone to bleeding or have complications are hesitant to undergo surgery. On the other hand, it must be CSDHs in mind that may spontaneously,^{3,16} which is said to occur in 2.8 to 21% of patients with mild mass effect who do not show signs and symptoms or have very mild symptoms.^{4,15,17} For this reason, non-operative treatment may be selected depending on the patient. In terms of non-operative procedures for CSDHs, hyperosmolar therapy^{8,22} with mannitol and steroid hormone therapy^{1,2,18} have been reported. Recently, practitioners in the field of neurosurgery have had another look at Kampo treatment and treatment of CSDH with Kampo medicines 9,10,14,21,15 for CSDHs has occasionally been seen. However, only a few case reports have been published and Kampo treatment has not

been established for CSDH.

Since January 2006, we have used *goreisan* for some patients with CSDH and studied its efficacy.¹¹ This study reports the efficacy of the medicine for CSDH obtained through conducting CTs with long-term follow-up.

Subjects and Methods

As stated above, surgery is an accepted treatment for CSDH. However, we used goreisan for CSDH in the following types of patients (with their consent and that of their family members): (1) those who did not desire surgery, (2) those who did not exhibit signs or symptoms, or very mild symptoms, and (3) those who were prone to bleeding or presented with systemically bad health conditions. The subjects enrolled in the trial were 22 patients with CSDH (the number of hematomas was 27). Their ages ranged from 50 to 98, with 18 subjects 70 years old or above. Nine subjects had right-sided hematomas, 8 had left-sided, and 5 had bilateral. Fourteen subjects had experienced trauma. Two subjects developed recurrent CSDH after surgery as the first treatment. At the start of treatment after CSDH developed, 8 patients presented without any symptoms, 7 had headaches or dizziness, and 5 had mild motility disorder. In terms complications, 5 patients had dementia. Each subject had one of the following complications: diabetes mellitus, dialysis, cerebral infarction, cerebral hematoma, terminal colon cancer, or jaundice.

The CT findings were examined for the maximum width of the hematomas and their CT density. Twenty hematomas, the largest number, had a maximum width of 10 to 19 mm just before treatment, 4 hematomas had 20 to 25 mm, and 3 had 9 mm or less. The CT density at the start of treatment with *goreisan* was evaluated as iso, high, or mixed in 14 hematomas and low in 13 hematomas. The period of follow-up by CT was 4–29 weeks (Table 1).

	CESG	ngorisen	location	hematoma density	næxlmun thick before (administration	nass of hanntonn after 1 of Gorei-san)	follow (weeks)
1.	тт	87·T	L	ndxed	LS	o	13
2.	КÜ	79/F	ī.	ndxed	20	ñ	14
			R	ndsed	10	Ö	7
3.	KY	95/51	L	mixed	25	12	29
4.	KT	62/\(\)(R	mixed	1.5	o	6
5.	RS	1400	L	nixed	18	12	-1
6.	SY	81/F	ī.	mixed	10	0	8
7.	SK	93/84	ī.	mixed	12	5	8
			R	iso	LD .	o	8
8.	IM	89 T	L	iso	15	o	11
9.	KS	7-1 T	R	iso	18	8	7
10.	AY	59%(L	եմցեւ	20	10	7
			R	high	8	2	7
11.	TM	664)[R	high	1.5	0	20
12.	TK	74°Kt	R	tov	20	12	24
13.	NT	78/M	ī.	low	1.5	10	3
14.	HF	85 F	R	low	7	0	4
15.	KK	837	L	low	8	o	8
16.	AS	92/31	L	low	1.5	B	17
			R	low	LD	o	17
17.	NK	82'M	R	low	10	0	10
18.	TTT	72/Nt	R	low	18	7	19
19.	HY	78/AI	R	low	LD	3	8
20.	AT	80'F	L	low	L S	1.5	2-1
			R	low	12	12	2-1
21.	L.L.	75 N	L	low	13	12	-1
22.	M	98/81	R	low	1.5	1.5	6

Table 1. Summary of cases with chronic subdural hematomas treated with goreisan..

TSUMURA *Goreisan* Extract Granules (Extract of *goreisan*, 7.5 g divided into 3 doses in three times a day, basically before meals) was orally administered to all patients with CSDH regardless of the patients' pathological conditions from the Kampo perspective. The patients who were able to take the medicine for four weeks or more were assigned to the study. With the disposition of the primary doctor, hemostatic agents (tranexamic acid and carbazochrome sodium sulfonate) were used in combination for 7 non-selected subjects. The effectiveness of *goreisan* was assessed based on whether the hematoma had resolved or decreased in size as determined by a CT. Results (Figure 1, 2)

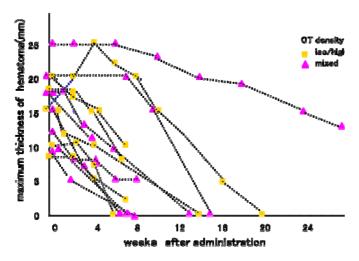


Figure 1. Change in maximum thickness of hematomas with iso/high () or mixed () density on a CT after administration of *goreisan*.

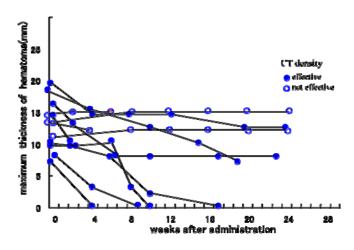


Figure 2. Change in maximum thickness of hematomas with low density on a CT after administration of *goreisan*. • effective cases

Oineffective cases

Results

The treatment with *goreisan* resulted in a high level of improvement in 23 (85%) of 27 CSDHs, including hematomas that had disappeared or shrunk, whereas treatment was ineffective for 4 CSDHs (15%) since they remained unchanged after administration of the medicine. In the 23 CSDHs responsive to goreisan, 12 hematomas disappeared and 11 shrank (Table 1). In 17 CSDHs (74%) out of the 23 CSDHs that showed improvement, the hematomas began to shrink within four weeks after administration and then they gradually shrank further or disappeared. Of the 12 CSDHs that disappeared, 10 took less than 14 weeks to disappear. None of the hematomas grew after administration of goreisan for four weeks or more, so there were also no CSDH cases that needed surgery. In the meantime, there were no adverse effects associated with the medication in any of the cases.

We studied the time-dependent changes in the density level of hematomas after administration of goreisan. The medicine was effective in all 14 CSDHs with density levels of mixed or high/iso on a CT before treatment. That is, 14 CSDHs all improved with 8 resolved hematomas and the other 6 shrank (Figure 1). Of the 13 CSDHs with lower density on a CT, 9 showed an improvement with the hematoma disappearing or shrinking, while 4 CSDHs remained unchanged and non-responsive to the administration of goreisan (Figure 2). The results of the study show that CSDHs with hematoma density levels of iso/high or mixed were more responsive to goreisan. We consider that further research with many more patients will be needed.

A representative case

Case: K. H. (Figure 3)

79 years old, female: Bilateral chronic subdural hematoma (CSDH) (L>R).

On November 19, X year, the patient fell down and banged her head. On January 10 of the following year, she visited our facility, complaining of a mild gait disorder. CT examination revealed a bilateral CSDH (right: 8 mm, left: 5 mm) with iso density and the administration ofhemostatic agents (carbazochrome sodium sulfonate 3 tablets and tranexamic acid 3 tablets a day) was commenced. A CT scan during a follow-up visit on February 7 enlarged hematomas, indicated having a maximum width of 10 mm on the right and 20 mm on the left, with mixed density on both sides. For this reason, goreisan 7.5 g (divided into 3 doses) was commenced with the hemostatic agents. The hematomas began to decrease in size after seven weeks: the right hematoma disappeared and the left one remained unchanged with a maximum width of 20 mm. However, the extent of the hematoma tended to decrease. On April 20, the density decreased to low and shrinkage was obvious. In the 14th week, the CSDH dissolved completely (Figure 3). The gait disorder also disappeared and she recovered her normal gait.

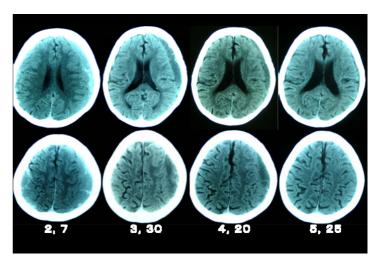


Figure 3. CT scan of case 2 (K.H.) before and after administration of *goreisan*. 06,2,7; before administration, 06,3,30;, 06,4,20;, and 06,5,25; 7, 10 and 14 weeks after administration of *goreisan*.

Discussion

A widely-accepted theory¹³ of the etiology and growth mechanism of CSDH is that hematoma enlargement occurs through blood leakage and constant or intermittent bleeding from neovascular vessels in a false membrane into the

capsule and the cavity of a hematoma in order to enhance local fibrinolytic activity inside the hematoma and its outer membrane. On the other hand, the old theory of osmosis pressure is still prevalent, but the cause is not known in detail. As nonsurgical management of CSDHs, the use of diuretics or steroids has been claimed to be effective. More specifically, effectiveness has been reported for mannitol 20% osmotherapy by Suzuki, et al.²² and Kinjyo, et al.;⁸ the combination therapy with steroid hormone and 50% glucose by Ambrosetto, et al.; ¹ and the steroid-alone hormone therapy by Glover, et al.² and Rudiger, et al.¹⁸

In recent years, CSDH has occasionally been treated using the aquaretic Kampo medicines of "goreisan" and "saireito." Seki, et al.21 used goreisan in 8 cases of CSDH and obtained improvement in 4 cases. Onuki¹⁰ and Ueno, et al.²⁵ reported that hematomas had resolved in all cases with the combination treatment of goreisan and prednisolone. Muramatsu, et al.14 reported the effectiveness of goreisan; they used the Kampo medicine alone in 11 cases and in 10 of the cases. the hematomas disappeared or shrank. Kitahara⁹ had favorable results using saireito, which is made up of two formulae: "goreisan" and "shosaikoto". Kitahara reported that improvement could be obtained even if administration of antithrombogenic agents continued.

Since 2008, a number of reports on the treatment of initial and recurrent CSDHs with *goreisan* have been published and all of these reports suggest its usefulness.

We treated 22 cases of CSDHs (27 hematomas): goreisan alone was administered in 15 cases, and goreisan and hemostatic agents were administered in combination in 7 cases, resulting in effectiveness in 23 hematomas — 12 hematomas were resolved and the other 11 shrank. We believe this improvement was due to the effectiveness of goreisan rather than spontaneous

healing. This is based on the following: (1) cases that had a tendency for the hematomas to grow before the administration of goreisan, and many cases that did not have a tendency for the hematomas to shrink were included; (2) there were cases that showed a tendency for the hematomas to shrink from an early stage after the administration of goreisan; and (3) higher rates of effectiveness of the treatment were shown compared to the frequency of spontaneous resolution of CSDHs in the past. In general, the hematomas started to shrink three to four weeks after the start of administration of goreisan, and disappeared within 14 weeks administration in most cases. There were only a few cases in which shrinkage started within 2 weeks. To assess the effect of CSDH treatment with this Kampo medicine, a continued administration for at least three to four weeks or more is required.

Goreisan, which consists of the five crude drugs ofarisma rhizoma, tuckahoe, polyporus sclerotium, atractylodes lancea rhizoma, and cassia twig, is a typical diuretic Kampo medicine. This diuretic medicine clinically has anti-edema action^{6,20} and is generally prescribed for pathological conditions such as headache, cerebral gastroenteritis, edema, ascites, ophthalmic disorders, hangover, and pain. Although the mechanism of the effect of the medicine on CSDHs is unclear, the diuretic actions may be the main contributing factor as the usefulness of mannitol osmotic diuretic agents has been reported.^{8,22}

Unlike the diuretic agents used in Western medicine such as mannitol, this Kampo diuretic medicine is characterized by the role of antidiuretic actions in a hydrated state and the role of regulating the actions of water metabolism in a hyperhydrated state.²⁴ It is said that the diuretic mechanism is involved in the inhibition of water channel aquaporins (AQPs), which increase water permeability in cell membranes, whereas goreisan inhibits the action of the aquaporins.^{5,20} According to Isohama,⁵ the constituent crude

drugs of *goreisan*, especially atractylodes lancea rhizoma, polyporus sclerotium, and tuckahoe (poria sclerotium), inhibit cell membrane water permeability. In particular, AQP4, which is most abundant in the brain but also distributed in large numbers in astroglia cells adhered to capillary endothelial cells, is said to be involved in water permeability.⁶ Atractylodes lancea rhizoma, the crude drug of the atractylodes family contained in *goreisan* used for CSDH treatment, has been used in many medicines as well as the ones used in our experiment. Ueno, et al.²⁵ have also reported that *goreisan* containing atractylodes ovatae rhizoma was effective for CSDHs.

Our experiment suggests that *goreisan* is more effective if the hematoma density on a CT is iso, high, or mixed, compared to low density. The reasons, however, are not known in detail. Meanwhile, in the cases of relatively new hematomas with iso density or high density, hematoma capsules often show the sinusoidal channel layer, which is filled with capillaries. On the other hand, in the hematomas with low density, old bleeding to a certain extent can possibly be found with relatively fewer vessels. This means that CSDHs with low density have a comparatively long course and the vessels in the hematoma capsule may be relatively scarce. So, it is possible that AQP4 surrounding the vessels are also relatively reduced, causing the reduced inhibition of water permeability.

goreisan is orally administered for treatment, unlike mannitol or steroid drugs, and it did not cause any adverse effects in the cases in our study¹¹ and in other reported cases.^{10,14,21,24,25} We consider *goreisan* to be an easy-to-use medicine and useful for the future nonsurgical management of CSDHs.

Conclusion

1. Goreisan was administered in 22 cases of CSDH with 27 hematomas for four weeks or more and the results showed it was effective in 23 hematomas (85%) with the hematomas disappearing or shrinking.

2. Goreisan did not cause any obvious adverse effects in the cases in our own study and in reported cases to date. It is a safe and useful drug for nonsurgical therapy of chronic subdural hematomas.

References

- 1. Ambrosetto C: Post-traumatic subdural hematoma. Further observations on non-surgical treatment. Arch Neurol 6: 287–292, 1962
- 2. Glover D, Labadie EL: Physiopathogenesis of subdural hematomas. Part 2: Inhibition of growth of experimental hematomas with dexamethasone. J Neurosurg 45: 393–397, 1976
- 3. Hirakawa K, Nakamura N, Sano K: Spontaneous recovery of chronic subdural hematoma Resolving subdural hematomathe first edition: clinical pictures and X-ray pictures, "Brain and Nerve" 19:661–670, 1967
- 4. Horikoshi T, Naganuma H, Fukasawa I, et al.: Computed tomography characteristics suggestive of spontaneous resolution of chronic subdural hematoma. Neurol Med Chir (Tokyo) 38: 527–532, 1998
- Isohaama Y: Working mechanisms of aquaretic drug "Goreisan", Kampo Igaku 29: 213–215, 2005
- Isohama Y: Does impede goreisan aguaporin-4? Is aquaporin molecule showing diuretic action? ISOM/Japan Goreisan Symposium (October 31, 2010), Japan Chapter of the International Society of Oriental Medicine, 1st Special Symposium Abstracts p. 15
- 7. Keji C: Chronic subdural hematoma (headache due to blood stasis). Traditional Chinese medicine clinical case studies: Foreign Language Press and New World press. Beijing, 1994, pp. 204–207
- 8. Kinjo T, Sakurai Y, Ogawa A, et al.: Nonsurgical treatment of chronic subdural hematoma. Neurol Med Chir (Tokyo) 25: 645–653, 1985
- 9. Kitahara M: Effectiveness of treatment with saireito for chronic subdural hematoma

- continued to take antithrombogenic agents. 19th Nihon Noshinkeigeka Kampo Igaku-kai Gakujutsushukai Shorokushu (19 themes) November 13, 2010
- 10. Konuki K: Therapeutic trial using *goreisan* for chronic subdural hematoma. Kampo Igaku 27: 115-117, 2003
- 11. Miyagami M, Kagawa Y: Effectiveness of Kampo medicine *goreisan* for chronic subdural hematoma. No Shinkei Geka 37: 765–770, 2009
- 12. Mori K, Maeda M: Surgical treatment of chronic subdural hematoma in 500 consecutive cases: clinical characteristics, surgical outcome, complication, and recurrence rate. Neurol Med Chir (Tokyo) 41: 371–381, 2001
- 13. Murakami H, Hirose Y, Sagoh M, et al.: Why do chronic subdural hematomas continue to grow slowly and not coagulate? Role of thrombomodulin in the mechanism, J Neurosurg 96: 877–884, 2002
- 14. Muramatsu M, Yoshikawa T, Hanabusa K: Effectiveness of Kampo medicine *goreisan-ryo* for chronic subdural hematoma in very elderly patients. No Shinkei Geka 33: 965–969, 2005
- 15. Naganuma H, Fukamachi A, Kawakami M, et al.: Spontaneous resolution of chronic subdural hematomas. Neurosurgery 19: 794–798, 1986
- 16. Nakamura N, Hirakawa K, Sano K: Spontaneous recovery of chronic subdural hematoma Resolving subdural hematoma second edition pathological process and background. "Brain and Nerve" 19: 1209–1219, 1967
- 17. Parlato C, Guarracino A, Moraci A: Spontaneous resolution of chronic subdural hematoma. Surg Neurol 53: 312–317, 2000
- 18. Rudiger A, Ronsdorf A, Merlo A, et al.:
 Dexamethasone treatment of a patient with
 large bilateral chronic subdural haematomata.
 Swiss Med Wkly 131: 387, 2001
- 19. Sambasiyan M: An overview of chronic

- subdural hematoma: experience with 2300 cases. Surg Neurol 47: 418–422, 1997
- 20. Sato S, Adachi K, Kanou T, et al.: Brain edema and aquaporin-4, Shinkei Kenkyu no Shinpo 50: 183–189, 2006
- 21. Seki H, Okita N, Takahashi S: Usefullness of treatment with *goreisan* for chronic subrural hematoma. Clinical Neurology 35: 317, 1995
- 22. Suzuki J, Takaku A: Nonsurgical treatment of chronic subdural hematoma. J Neurosurg 33: 548–553, 1970
- 23. Svien HJ, Gelety JE: On the surgical management of encapsulated subdural hematoma. A comparison of the results of membranectomy and simple evacuation. J Neurosurg 21: 172–177, 1964
- 24. Munetetsu TEI: Hozai Yakuri Series, *Goreisan* (Part 2), Kampo Igaku 26: 42–46, 2002
- 25. Ueno S, Ota H, Shimizu I, et al.: An experience of treatment with *goreisan* for chronic subdural hematoma, Journal of Japan Society for Oriental Medicine 59 (suppl), 205, 2008

Clinical Report 1 (Japan)

A Case Report on Acupuncture Treatment for "Complex Regional Pain Syndrome (CRPS)"

Shigeru Nakajima

Midori no Kaze Acupuncture Clinic, Morinomiya College of Medical Arts and Sciences

Introduction

Chronic pain, edema, skin temperature anomalies, sweating and other symptoms are associated with the refractory and chronic pain of complex regional pain syndrome (CRPS) that may be triggered with surgeries or injuries. CRPS was once called reflex sympathetic dystrophy (RSD) or causalgia. Its morbidity is approximately 5 in 100,000 people and is therefore a disease of comparatively low incidence. We report a case of acupuncture treatment for a patient who had been diagnosed of RSD.

[Case Report]

Patient: Age 52 years, female.

First visit: March 10, 2008

Chief complaints:

#1 dull pain of the left hand

#2 edema of the left hand, stiffness

#3 irregular symptoms of feeling of sensations of

heat in the left hand, cold and sweating

#4 feeling of weakness of the left upper extremity

Present illness:

The patient underwent surgery for left thumb tendosynovitis in June 2007. Following the surgery a tingling sensation of the surgical scar and a feeling of traction gradually developed. Moreover, symptoms of dull pain, a sensation of heat in the left hand, edema, stiffness, a sensation of cold, irregular sweating and a sense of weakness of the left upper extremity developed. Based on the results of a detailed examination performed in a different clinic the physician diagnosed as RSD. From July 2007 to February 2008 left stellate ganglion blocks (SGBs) were performed and resulted in a mild improvement of

the symptoms, but now the injection site on the left side of the neck became painful. Concerns about continuous nerve block treatment finally brought the patient to our clinic.

Past history:

In 2004 temporomandibular arthrosis (treated with acupuncture in this acupuncture clinic)

Life style:

Alcohol: moderate amount of beer; tobacco: does not smoke

Family history: nothing particularly noteworthy.

General symptoms: appetite: normal, bowel movements: once a day; sleep: normal; stiffness of the back of the neck; shoulder stiffness, weariness of the muscles around the left temporomandibular joint.

General physical findings: Height: 155 cm; weight: 51 kg; blood pressure: 128/80 mmHg; pulse rate: 56 bpm (regular pulse)

Local physical findings: Jackson and Spurling test (-), TOS tests (-); deep tendon reflexes (+: no left-right differences), pathologic reflexes (-)

Left hand: edema (+), feeling of heat (+), redness (+), muscle atrophy (-), sensation (normal: no left-right differences), nociception (little finger, digital pad: slightly hypersensitive), tenderness (-).

Right hand: Nothing particularly noteworthy.

Subjective symptoms during the night: no nocturnal pain of the left hand. However, there is a sensation of edema.

Subjective symptoms in the morning: stiffness of the left hand.

Comprehension of the pathologic condition:

(1) Following surgery for left thumb tendovaginitis gradual development of dull pain, edema, stiffness, a sensation of heat and cold, irregular sweating and a sense of weakness of the left upper extremity. (2) Findings during the first examination. Based on the above described (1) and (2)the clinical characteristics were considered to match those of a CRPS.

Patient impression obtained during the medical interview: speaks impatiently. Appeared slightly tired. Informed consent: CRPS is a refractory condition. The therapist had performed acupuncture and moxibustion treatment only once about 4 years ago for a patient with CRPS, but this patient dropped out when the symptoms had improved to about 1/2 of their original intensity. The above described situation was explained to the patient and the acupuncture and moxibustion treatment started after obtaining the patient's consent.

Acupuncture and moxibustion treatment plan: Initially the approach was to gradually apply local stimulation while observing the course. Moreover, we applied acupuncture and moxibustion treatment also for the stiffness from the back of the neck to the shoulders and around the left temporomandibular joint.

Observation plan (evaluation):

Prior to the performance of the SGB treatment the severity of the symptoms of the CRPS was rated on a 10-step Numerical Rating Scale (below called NRS).

- ➤ The NRS10 for the symptoms (1) (7) prior to the performance of the SGB treatment:
- (1) Edema: the edema is so severe that the patient cannot wear M size rubber gloves
- (2) Pain: dull pain (heaviness + pain)
- (3) Redness: the entire hand is red
- (4) Irregular symptoms of sensations of heat in the left hand, cold and sweating: Depending on the time the patient experienced hot and cold sensations and sweating on an irregular basis.
- (5) Stiffness of the left hand. Hand and fingers could not be flexed.
- (6) Sense of weakness of the upper extremity: This sensation covered an area from the upper arm to the tip of the fingers.
- (7) Numbness: pulling sensation at the site of the surgical incision + numbness

- ➤ NRS for the acupuncture and moxibustion treatment after the first examination
- (1) Edema: NRS 6
- (2) Pain: NRS 6
- (3) Redness: NRS 6
- (4) Irregular symptoms of sensations of heat, cold and sweating: NRS 5
- (5) Stiffness of the hand: NRS 7
- (6) Sense of weakness of the upper extremity: NRS 7
- (7) Numbness: NRS 0

Acupuncture and moxibustion treatment and course (disposable needles, 40 mm, No.1 were used)

> First treatment (March 10, 2008):

Supine position: GV20 (Hyakue, Baihui), left ST6 (Kyosha, Jiache), left ST7 (Gekan, Xiaguan), left GB3 (Jokan, Shangguan), bilateral LI11 (Kyokuchi, Quchi), bilateral GB34 (Yoryosen, Yanglingquan) - retaining the needles for 10 minutes.

Single insertion at interdigital points (distal). Single needling of interdigital points (proximal) - indirect moxibustion, 5 cones.

Prone position: bilateral GB20 (Fuchi, Fengchi), bilateral GB21 (Kensei, Jianjing), bilateral BL43 (Koko, Gaohuang), bilateral SI10 (Jue, Naoshu) - retaining the needles for 10 minutes. At the same time warming moxibustion on the shoulders (box moxibustion)

> Second treatment (March 21, 2008):

On the morning following the treatment the stiffness of the left hand and fingers had decreased. Alleviation of the sense of weakness of the left upper extremity. In addition to the first treatment pressure applied to the left auricle resulted in some alleviation of the ipsilateral arm, so that the posterior part of the auricular was needled. GV20 (Hyakue, Baihui), bilateral LR3 (Taisho, Taichong) retaining the needles for 10 minutes. Left carpal tunnel, Tinel sign (-)

➤ Third treatment (March 31, 2008):

Alleviation of the sense of weakness of the left upper extremity. However, mild pain had developed around the temporomandibular joint. Development of stiffness of the MPs of the left first and fifth fingers. Additional treatment of right ST6 (Kyosha, Jiache), right ST7 (Gekan, Xiaguan), right GB3 (Jokan, Shangguan), retaining the needles for 10 minutes.

> Fourth treatment (April 4, 2008):

Following the treatment of pain and stiffness of the MP of the left first and fifth fingers the alleviation of the symptoms continued for 1 week, but after that returned to the original state. Sensation of heat and swelling in the left thenar and hypothenar. Single insertion without retaining the needle into in the left thenar and hypothenar (40 mm, #01). The NRS scores were: (1) edema 6, (2) pain 6, (3) redness 2, (4) irregular symptoms of a sensation of heat, cold and sweating 4, (5) stiffness of hands and fingers 7, (6) weakness of the upper extremity 7, (7) numbness 0.

➤ Sixth treatment (April 25, 2008):

Development of pain near the left sternoclavicular joint, right blepharospasms.

> Seventh treatment (May 2, 2008):

No change of the pain near the left sternoclavicular joint. Disappearance of the right blepharospasms.

➤ Ninth treatment (May 16, 2008):

Sneezing has become impossible because of the pain near the left sternoclavicular joint; development of left blepharospasms. Needle retaining at bilateral KI26 (Ikuchu, Yuzhong), CV14 (Koketsu, Juque). Later indirect moxibustion (use of moxibustion paper); 5 cones of half rice grain size.

> Tenth treatment (May 26, 2008):

Disappearance of the left blepharospasms. Relief

of the pain near the left sternoclavicular joint. Appearance of sneezing and hiccupping.

> Twelfth treatment (June 11, 2008):

Irritation by weakness of the left upper extremity and stiffness of hands and fingers.

The NRS scores were: (1) edema 5, (2) pain 5, (3) redness 1, (4) irregular symptoms of a sensation of heat, cold and sweating 2, (5) stiffness of hands and fingers 4, (6) weakness of the upper extremity 5, (7) numbness 0.

Fourteenth treatment (June 27, 2008): Relief of left chest pain and stiffness.

> Fifteenth treatment (July 11, 2008):

General relief of the symptoms.

The NRS scores were: (1) edema 2, (2) pain 2, (3) redness 0, (4) irregular symptoms of a sensation of heat, cold and sweating 1, (5) stiffness of hands and fingers 2, (6) weakness of the upper extremity 5, (7) numbness 0.

> Seventeenth treatment (August 8, 2008):

Due to the general relief of the symptoms I planned to extend the treatment intervals to 1 month. For the stiffness of the hands and fingers carpal tunnel needling (single insertion) was added.

The NRS scores were: (1) edema 0, (2) pain 0, (3) redness 0, (4) irregular symptoms of a sensation of heat, cold and sweating 0, (5) stiffness of hands and fingers 1, (6) weakness of the upper extremity 2, (7) numbness 0.

> Eighteenth treatment (September 5, 2008):

The previously applied needling of the carpal tunnel seemed to have been effective, since there is almost no stiffness of hands and fingers. The NRS scores were: (1) edema 0, (2) pain 0, (3) redness 0, (4) irregular symptoms of a sensation of heat, cold and sweating 0, (5) stiffness of hands and fingers 0, (6) weakness of the upper extremity 2, (7) numbness 0.

➤ Twentieth treatment (October 31, 2008): General improvement of all symptoms.

The NRS scores were: (1) edema 0, (2) pain 0, (3) redness 0, (4) irregular symptoms of a sensation of heat, cold and sweating 0, (5) stiffness of hands and fingers 0, (6) weakness of the upper extremity 2, (7) numbness 0.

period of approximately 7 months led to the following improvement of the NRS scores: edema $6\rightarrow 0$, pain $6\rightarrow 0$, redness $6\rightarrow 0$, irregular symptoms of a sensation of heat, cold and sweating $5\rightarrow 0$, stiffness of hands and fingers $7\rightarrow 0$, weakness of the upper extremity $7\rightarrow 2$.

The improvement was maintained by subsequent regular treatments.

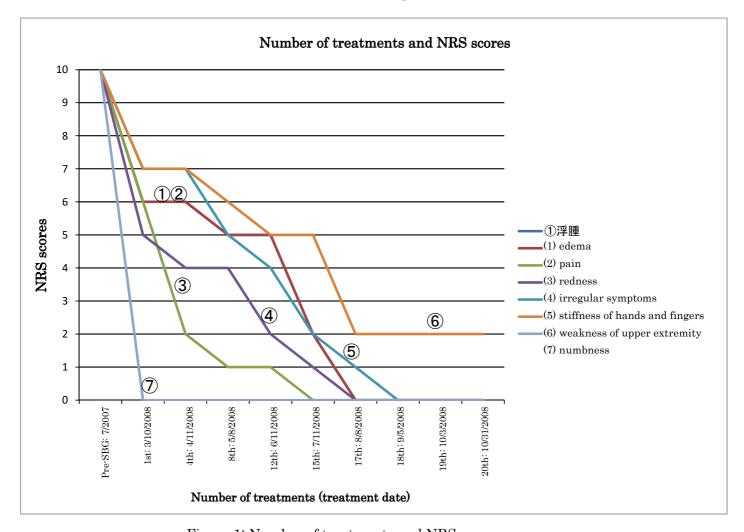


Figure 1: Number of treatments and NRS scores

Number of treatments and NRS scores (Figure 1:

Number of treatments and NRS scores)

Shows the improvement of the NRS scores with increasing number of treatments.

A total of 20 treatments administered over a

Discussion

Yoshiki Hamada wrote in his summary of the CRPS seminar held in February 2007 titled "Early Diagnosis of CRPS and Points to Consider":

"The Lankford classification is clinically of extreme importance and an early initiation of treatment of the minor type of the condition may often lead to favorably functional recovery without the development of refractory symptoms".

Table 1shows the Lankford classification. This shows that it classifies the condition into a major and a minor type.

➤ Moreover, in Yoshiki Hamada's summary "Early Diagnosis of CRPS and Points to Consider" it also says:

"Twenty out of 25 patients (80%) for whom the treatment was initiated within 6 months of the onset recovered functions so far, that they were able to return to ordinary daily life within one year, but in 70% of these cases the condition had been classified as minor type."

- > The Lankford classification includes the items "palpation impossible" for the major type and "palpation possible" for the minor type. The question whether palpation is possible or not is considered to be closely related to the possibility of administering acupuncture treatment.
- ➤ In this patient the condition was palpable and it is therefore reasonable to think, that a state of hyperaesthesia was present in the area treatable by acupuncture.

Lankford Classification

Clinical form	Symptoms and Sign
Minor traumatic dystrophy	Minor clinical symptoms like pain and swelling. Functional disorders were extremely mild and there was mild allodynia (palpation possible)
Major traumatic dystrophy	There was severe pain, swelling, functional disorder and allodynia (palpation possible)
Minor causalgia	Mild pain, swelling, functional disorder and allodynia (palpation possible)
Major causalgia	Motor- and sensory nerve injury (Michell Causalgia)
Shoulder-Hand syndrome	Shoulder and wrist joint pain secondary to myocardial infarction, swelling etc. CRPS symptoms

The Lankford classification does not describe the degree of allodynia

Conclusion

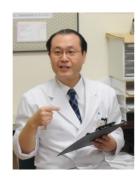
- (I) In this case the clinical condition of the CRPS based on NRS evaluations showed already signs of improvement when the patient first visited this acupuncture clinic. The characteristics of the clinical symptoms of CRPS may vary significantly depending on the disease progression in individual patients. In this case the acupuncture treatment for the various symptoms of this patient with CRPS appeared to have been effective.
- (II) CRPS is associated with severe physical and mental stress. Acupuncture treatment seems also to be helpful for secondary symptoms caused by irritation and concerns.
- (III) Although this was only one case, this one case gave me the impression, that the concepts pertaining to indications and contraindications of acupuncture treatment for CRPS should be reconsidered.

References

- 1) Shibata M., Yoshiya U., Masamo T.: "Pain Treatment"; pp 131-135, Kokuseido Co. Ltd., 2000
- 2) Morimoto M.: "Pain Clinic and Oriental Medicine"; pp 505-512, Shinko Trading Co. Ltd, Publishing Department of Medical Books, 2004
- 3) Hamada Y.: "Early Diagnosis of CRPS and Points to Consider"; Summary of the CRPS Seminar, 2007
- 4) Masamo T., Shibata M. editors: "Complex Regional Pain Syndrome (CRPS)"; Shinko Trading Co. Ltd, Publishing Department of Medical Books, 2009

< Shigeru Nakajima >

* Graduated in 1986 from the Osaka Vocational School of Acupuncture and Moxibustion (today: Morinomiya College of Medical Arts and Science)



- * June 2001: employment in the department of acupuncture and moxibustion of the clinic affiliated with the Morinomiya College of Medical Arts and Science (today: Midori no Kaze Acupuncture Clinic affiliated with the Morinomiya College of Medical Arts and Science)
- * Member of the Japan Society of Acupuncture and Moxibustion, member of the Japan Conference of Clinical Acupuncture and Moxibustion
- * Concurrent lecturer in the Department of Acupuncture and Moxibustion of the Morinomiya College of Medical Arts and Science
- In charge of: clinical practice $(1^{st} 3^{rd})$ grade students), practical acupuncture and moxibustion skills I (3^{rd}) grade students)
- * Concurrent lecturer in the department of health services of the Department of Acupuncture and Moxibustion of the Morinomiya College of Medical Arts and Science
- In charge of acupuncture and moxibustion diagnostics and therapy I

Midori no Kaze Acupuncture Clinic affiliated with the Morinomiya College of Medical Arts and Science / Midori no Kaze Acupuncture Clinic

The clinic affiliated with the Morinomiya College of Medical Arts and Science and the affiliated acupuncture and moxibustion clinic established in 1982 were reopened in January 2010 after moving to the third floor of a new building under the name "Midori no Kaze Acupuncture"



"Midori no Kaze Acupuncture Clinic / Midori no Kaze Clinic".

The clinic section has the following departments: orthopedics, rehabilitation, internal medicine, Kampo medicine and acupuncture and moxibustion. This facility also focuses on the training of the next generation of medical personnel and has the function of providing opportunities for clinical practice for the students of the Morinomiya College of Medical Arts and Science.

< Midori no Kaze Acupuncture Clinic (3rd Floor) >



Clinic reception

Acupuncture and moxibustion treatment room







Clinical practice in the department of acupuncture and moxibustion

< Midori no Kaze Clinic (1st Floor) > Orthopedics



Physician: Yoshio Miyazaki; physician: Takahiro Shintani Director of the Midori no Kaze Clinic

Internal medicine, Kampo medicine



Professor of the department of health services of the Morinomiya College of Medical Arts and Science



MRI

< Midori no Kaze Clinic (2nd Floor) > Rehabilitation



Clinical Report 2 (Japan)

One Case that had Effect of Bakumondoto on Post-Herpetic

Neualgia caused by Yin Deficiency

Mihoh Koga, M.D. – Kampo Specialist

Division of Clinical Pharmacology and Therapeutics,

Division of General Medicine

Jikei University School of Medicine

Different types of individual therapies have been attempted to treat post-herpetic neuralgia, which is one of the conditions for which Kampo medicines are very frequently used. As we recently had a successful case that had benefits of *bakumondoto*, we will hereunder report it with our observations and a bit of our views.

[Case]

Male of 85 years old. Small build and thin, aged person with fair complexion.

[Chief complaint]

- 1. His speech began to slur 2 to 3 years ago.
- 2. 10 years suffering of postherpetic neuralgia (left lumbar area L3/Level 4).
- 3. Habitual constipation.

[Origin and course]

About 10 years ago, herpes zoster developed in the left lumbar area L3/Level 4 and then PHS was induced. The pain was severe and even the rubbing of clothing against the skin caused pain. The patient had been receiving treatment by the pain clinic of a certain university hospital with the prescription of *keishikaogito+Processi Aconiti* Radix for 2.5 months. He said that the administration of this medicine brought a pain relief for a while. Lying down on the bed for a clinical examination produced pain.

He had had the feeling of being unable to speak articulately and properly for 2-3 years. At

the Department of Neurology and Internal Medicine of a certain university hospital, he had received MRIs due to walking with unsteady steps and it was found that there were small cerebellar infarctions x 3 places. He had been told by the physician that the symptoms would not be associated with the infarctions and Perkinsonim was suspected, for which Madopar had been administered "experimentally to see his reactions to the medication." When he visited us, it did not seem that words did not come out easily although he had the dry tongue that prevented his smooth speaking. While talking, he incessantly drank water from a plastic bottle.

[Drugs currently being taken]

Candesartan / Disopyramide / Arotinolol /
Magnesium Oxide / Biofermin / Neurotropin /
Trimebutine / Amitriptyline / Levodopa /
keishikaogito+Processi Aconiti Radix /
Dipotassium Clorazepatate→ Zolpidem /
Brotizolam / Etizolam

[Living environment]

He had been living in a care facility for about a year.

[Findings]

Food intake, frequency, and time were well regulated so that he had a weight loss to 44 kg from 50 kg. Now he prepared by himself in-between snacks and eat them. Although he was sensitive to cold by nature, he claimed that the feet felt warm and burning in this winter. There was no itchy sensation in the skin but the tongue was dry and red colored. The abdominal strength was reduced with the soft abdominal wall and stools were palpated.

[Diagnosis]

The dryness of the body was intense and his pattern/syndrome was diagnosed as being caused by yin deficiency.

[Treatment]

Neurotropin, Amitriptyline, and famotidine causing the side effect of dry mouth were discontinued. Likewise, Biofermin and Levodopa were discontinued because of the uncertainty of these drugs' effectiveness. keishikaogito+Processi Aconiti Radix was also discontinued as it contributes to dryness. The pain-relief action of Aconti tuber, one of the ingredients of this Kampo medicine may help kill pain temporarily, but its continued use has a high potential exacerbating 2 above.

The administration of 3 packs each of TSUMURA bakumondoto (Tsumura & Co., Ltd., Tokyo, Japan) and TSUMURA mashiningan (Tsumura & Co., Ltd., Tokyo, Japan) was started in equal doses three times a day.

[Treatment and course]

The amount of saliva increased within 2 weeks and the patient became aware that he was able to speak smoothly. However the pain remained as ever.

After 5 weeks, he did not complain of the pain in the lumbar region in abdominal examinations.

After 8 weeks, when he was asked about the pain, his reply was "have forgotten about it!"

His complexion was good with healthy glow. He was aware of skin moist. Sleep improved and bowel movements became regular.

Same medication was continued.

In this patient, the symptoms might have improved only by excluding excessive drugs and an inappropriate Kampo medicine.

This was a case that provoked the author to think about iatrogenic diseases.

The author considered that the root cause of the patient's symptoms was vin deficiency lacking "the amount of fluids" to enrich yin and that the pain was caused by the "stagnation of nourishment." As the mouth was severely dry and the large intestine of the stomach-intestines was also dry, leading to constipation, firstly deficiency approached. stomach-vin was Bakumondoto which works on the lung, was effective because the inextricable relationship exists between the large intestine and the lung.

Clinical Report 3 (Japan)

One Case that had Effect of Daibofuto on RA with High Level of Maniphalanx Deformation

> Hiromichi Yasui Japan Institute of TCM Research

[Case]

Female of 79 years old

Initial visit: November 4, 2009

Chief complaint: With deformed finger joints on both hands, unable to open them.

Current medical history:

Since the diagnosis of rheumatoid arthritis of about 20 years ago, the patient had received treatment. The daily dose of 5mg of prednisolone was started six years ago. The deformation of both hands began to progress about 5 years ago. About a year ago, the fingers of both hands drifted into the ulnar-deviated positions, in which they (fingers) pointed toward little fingers. All fingers became bent with pains, and gradually advanced to the inability of their extension. The deformation of toes was prominent. From a week ago, hand fingers were being unable to open at all, causing her great difficulty in carrying out normal activities of daily living, such as using chopsticks at mealtimes and using the toilet. Due to pains in both shoulders, upper limbs could not be raised. Toes on both feet were also deformed. Loxoprofen relieved morning pains, so that it was routinely used.

Appetite: Ordinary

The patient always had dry mouth. She frequently drank water.

Sleep: She had difficult in falling asleep, but it was not a special problem.

Defecation: Once/day Urination: 10-12 times/day

Present condition: 134cm (as her back was hunched, the height was inaccurate.) and 42kg.

Because of the deformed lumbar spines, her back was greatly hunched over.

Pulse: Sunken and thin

Tongue: Pale red with no furs. Smooth without lingual papillae.

Diagnosis: Deficiency of qi and blood and weak constitution / liver-kidney deficiency / wind-cold dampness causing accumulation and stagnation of excess fluids.

Method of treatment: To tonify qi and blood/to dispel wind and disperse swelling

Prescription: daibofuto decoction with adjustment

Angelicae Acutilobae Radix 4g

Paeoniae Radix 4g Rehmanniae Radix 4g

Astragali Radix 4g

Saposhnikoviae Radix 4g

Eucommiae Cortex 4 g

Atractylodis Lanceae Rhizoma 4g

Zingiberis Rhizoma 1g

Cnidii Rhizoma 3g

Ginseng Radix 2g

Notopterygii Rhizoma 2g

Achyranthis Radix 2g

Glycyrrhizae Radix 2g

Ziziphi Fructus 2g

Aconiti Radix Processa 2g

Course: The pain in the fingers on the hands improved within 2 weeks and they could be opened slightly. After 4 weeks, they could be further opened with the pain in the right shoulder resolved, allowing the right arm to be elevated. However the pain in the left shoulder still remained. At this point, non-prepared Aconiti Radix 0.5g was added. The patient showed CRP0.3 and KL-6 188 on December 17. On January 13 of year X+1, the fingers on both hands could be opened further wider and the pain in the left shoulder disappeared and no problems were left with both upper limbs. On March 18, the level of CRP was 0.00 whilst that of RF was 201. In May, the patient resumed his farm work. In the visit to the hospital of August 18, she showed further recovery and was more cheerful.

[Discussion]

The patient with the history of RA for 20 years could not open fingers of both hands, causing the difficulty in carrying out her daily living. Furthermore, she had the back hunched and pains in the joints of both shoulders, so that even motions gave her excruciating pains and she was at a complete loss. Thus she visited our clinic. Unlike in the initial stage of RA development, disabilities and limits to motions due to the deformation as well as continuing pains as ever threatened her daily living.

The patient had the long time stagnation of wind-dampness which obstructed the flows of qi and blood, resulting in deficiency at the same time. Because of this, strong medicines for disorders in the acute stage cannot appropriately be used. Wind-dampness must be eliminated while qi and blood are being tonified and replenished to allow for their flows to be recovered. The patient disease was long-standing, leading to the deficiency of the liver-kidney, which further caused the inability of producing nutrients for muscles and bones. Therefore, the liver and kidney needed to be replenished.

How could such conditions of the chronic phase be improved in a short period of time, and even if possible, improvements would be limited. Notwithstanding, only a little improvement could improve the quality of the patient's life. Especially whether or not she could open and close the hand fingers did matter a lot to her.

Daibofuto has the action of replenishing deficient and blood and eliminating wind-dampness being stagnant in muscles and bones. Two weeks after the start administration, the hand fingers became able to open and close, and then general pains became gradually improved, making the patient's daily living less difficult. Some functional recovery in other patients with RA that has progressed to develop deformity over an extended period of time can be expected to a certain degree, if not complete, and the quality of life will be enhanced by means of identifying the etiology to provide procedures. Daibofuto appropriate a recommendable medication for such cases.

23

Kampo Formula Developed in Japan (1)

Otsujito ("B" Character Decoction)

Hiromichi Yasui Japan Institute of TCM Research

Otsujito ("B"Character Decoction) was a formula invented about 200 years ago in Japan by Nan-yo Hara (1752-1820). He created several new formulae and four of them have names starting with Chinese Zodiac, Ko(A), Otsu(B), Hei(C), and Tei(D). Otsujito is the most well known formula of them all. After this, Sohaku Asada (1815-1894) modified the otsujito and the modified formula is now called otsujito.

The formula is now available in the extract form and often used as a specialized prescription for hemorrhoids (piles) in clinical sites. The constituents of the prescription are as follows:

Angelicae Acutilobae Radix 6 g

Bupleuri Radix 5 g

Scutellariae Radix 3 g

Glycyrrhizae Radix 3 g

Cimicifugae Rhizoma 1 g

Rhei Rhizoma 1 g

(In the original prescription made by Nan-yo Hara, Japanese angelica Root was not used but instead Chinese Date and Fresh Ginger were contained.)

[Efficacy] Cooling and activating the blood and elevating qi

[Indications] Blood heat, blood stasis, falling qi [Drug actions] Angelicae Acutilobae Radix activates the blood and its circulation. Bupleuri Radix frees qi movement in the triple energizers and Cimicifugae Rhizoma enhances sunken qi. Combined use of these three kinds of drugs resolves obstructed network vessels (meridian) caused by qi binding in the lower energizer. Scutellariae Radix clears heat generated by qi stagnation and blood stasis. Rhei Rhizoma enters

the qi system and the blood system, clears the heat and purge the fire and cool the blood and then expels toxins. *Glycyrrhizae* Radix has the actions of harmonizing various drugs as well as clearing heat and resolving toxins.

Clinical application

Otsujito is used for various types of hemorrhoids and its use is especially suitable for the relatively acute condition in which there are constipation, pain and small amounts of bleeding. Otsujito is also used for prolapsed hemorrhoids in the initial stage.

1. Hemorrhoids

Yoshio, et al. administered otsujito 6.0g to 98 patients with hemorrhoids for 8 weeks to compare subjective symptoms (pain, bleeding, prolapse) and objective symptoms (bloating, hemorrhoid) before and after the administration. They report the results of the overall improvement rate that markedly improved accounted for 28.6%, improved 39.6%, and slightly improved 23.5%. For the rate of usefulness, extremely useful accounted for 22.4%, quite useful 41.8%, and slightly useful 21.5% with the recurrence rate of 15.2% after the discontinuation of administration. The recurrence timing was after 2.5 to 7 months after the discontinuation of administration¹⁾.

When this prescription is clinically used for hemorrhoids, generally it is not used by itself but it is often used in combination with other prescriptions. For example, keishibukuryogan (Cassia Twig and Tuckahoe Pill) is combined if blood complicated; hochuekkito stasis is(Middle-Reinforcing and Qi-Benefiting Decoction) if there is distinguished qi deficiency; yokukansan (Liver-Inhibiting Powder) if there is marked liver depression; and orengedokuto (Coptis Detoxificating Decoction) if there is an excess heat toxin.

Case 1: Hemorrhoid

The patient was a male of 27 years old. He had been suffering hemorrhoids since his school days. Recently, an anal fissure (bleeding hemorrhoid) and internal hemorrhoids of a finger-tip size became inflamed like attacks several times a year so that the patient was somewhat neurotic. Although his doctor recommended a surgery, he could not be away from work for hospitalization for as many as a week. So he did everything he did but the condition did not improve at all. He felt like using "Kampo Medicine" and visited the clinic.

He was quite healthy except for the affected area although there was the sho of blood stasis. Therefore, the decoction of *otsujito* was administered for continuous two months without effects. Since there were no reasonable conditions for changing the prescription and the patient said that it took a lot of trouble to prepare the decoction, I decided to use the extract tablet of *otsujito* and *keishibukuryogan* as a drug for dispelling blood stasis.

Three weeks later, the bleeding stopped and pain was also relieved. After continuous use for six months, an examination indicated that the internal hemorrhoids reduced to the size of a piece of soybean and the symptom of blood stasis of the face and the lower abdomen disappeared. Two years passed without the medication. However, there has been no recurrence. (Akira Ishihara, Two Cases in Clinical Trial on *Otsujito*, The Association of East-Asia Medicine Vol.12 3-go p61, 1965)

Case 2: Hemorrhoidal bleeding
Patient: Female of 34 years old
Chief complaint: Bleeding
Current medical history: When constipated, she
had bleeding and the toilet bowl became bright
red, which began to happen several years ago.
Whenever bleeding occurred, the patient used

over-the-counter suppositories. As bleeding became severe four days ago and did not stop with suppositories, she visited our clinic.

Findings at the initial visit: There were three internal hemorrhoids in the 3 o'clock, 7 o'clock, and 11 o'clock positions. From the internal hemorrhoid in the 7 o'clock position, ruptures and bleeding were observed. The internal hemorrhoid was positioned in the 1 o'clock direction.

Treatment: otsujito (Tsumura & Co., Ltd., Tokyo, Japan) were used with orengedokuto (Tsumura & Co., Ltd., Tokyo, Japan) Extract Granules (for ethical use). On the 2nd day of the administration, the bleeding disappeared. After one month of administration, a proctoscopic examination showed the bleeding stopped and the internal hemorrhoids changed in color from bright red to dark red.

(Tomonori Kawai, Jishitu ni taisuru Kampo Seizai Heiyo Ryoho, Kampo Shinryo Vol.7, 2-go, p50, 1988)

Case 3: Bleeding hemorrhoids and pain Patient: Female of 59 years old Chief complaints: Bleeding and pain

The patient had a medium physical constitution and no anemia with slightly dark complexion. Appetite and sleep were normal. Bowel movements were diarrhea-constipation. She was sensitive to cold (+) with no dry mouth, and no sweat. The abdominal sho was shown in Figure 1. There were two hemorrhoids with the size of a piece of soybean in the 7 o'clock position.

After three months of administration of *otsujito* 8.0 + *hochuekkito* 6.0 (per day), no bleeding was observed. After five months, the patient complained pain only sometimes. A cure was achieved within eight months.

(Shigeru Tanaka, Jishitu to Kampo Chiryo, Kampo Shinryo Vol.5, 1-go, p42, 1986)

1. Prolapsed hemorrhoid

Otsujito works to recover the qi movement bound in the lower energizer. So this formula is also used for prolapsed hemorrhoids. Bupleurum Root and Cimicifuga Rhizome contained in the prescription enhance stagnant qi movement by their action of raising qi and drooped organs caused in conjunction with lowering qi. The prolapsed hemorrhoids which are the symptom of deficiency are often accompanied by spleen deficiency, in which case *hochuekkito*, for example, is used in combination.

Case 4: Prolapsed hemorrhoid and pain Patient: Female of 45 years old Chief complaints: Prolapsed hemorrhoid and pain

Sometimes hemorrhoid prolapsed during a bowel movement, which began to happen several years ago. Pain was added and became persistent from two months ago.

The patient face was pale but did not have anemia. The lower half of her body was cold. Appetite and sleep were normal. Bowel movements were once/day with one slightly soft stool. The dry mouth condition was (+) with sweat (-). The overall abdomen was weak and soft without resistance. The affected area: The hemorrhoid with a size of a finger tip was in the state of an everted flower and the surrounding tissues were congested and swollen. Intense pain was felt intense in palpation. "shiunko" was applied and then the hemorrhoid was pushed back. Shiunko was used as an external medication.

I judged that an intense sensation of cold with normal appetite was the symptom of deficiency of qi and blood. On the basis of this, Prepared Aconiti Radix Processa 1.5g + *shikunshito* 8.0g (per day) were administered for two months. Then the prolapsed hemorrhoid became able to retract somehow. Therefore, the medications

were changed to *otsujito* 7.0g + *hochuekkito* 7.0g (per day). For constipation the patient complained of, *mashiningan* 4.0g (as needed) was used after dinner. Further two months later, prolapsing was reduced to only a little during a bowel movement. Further three months later, subjective symptoms relieved. The medications were suspended again for further two months. (Shigeru Tanaka, Jishitu to Kampo Chiryo, Kampo Shinryo, Kampo Shinryo Vol. 5, 1-go, P39, 1986)

1. Itching around the anus

Anal itching is often caused by damp-heat in the lower energizer. This prescription has the action of recovering qi movement in the lower energizer and concurrently dispelling damp-heat, by which the itchy sensation in the anus and the anterior pubic region can be relieved.

Case 5: Bleeding hemorrhoids and itching around the anus

Patient: Male of 38 years old.

Initial visit: July 30, 1983

Present medical history: The patient had been complaining of bleeding from the anus and itching around the anus for about two years. Present condition: The patient was of large build, fatigable, and unable to have sufficient sleep with pale complexion. The patient was a heavy sweater (whole body). The anus felt no pain but there were bleeding and an itchy sensation around the anus. Bowel movements were once a day with one stool and there was a sensation of residual stool. Appetite was good. The tongue was covered with thin white furs and moist. Pulse was floating with strength. The abdomen was generally soft with a slight bloating feeling in the chest and hypochondrium on right and left sides, and there was a slight tension over the abdominal muscles in palpation.

[Treatment and course]

During the administration of *otsujito(without Rei Rhizoma)*, subjective symptoms gradually improved. By the end of the 100 day administration, they become resolved.

(Genpo Ogata, Kampo Chiryo Shorei-Senshu (1) P236, Gendai Shuppan Planning Co., Ltd. 1988)

1. Hemorrhoidal disease during puerperium

Pregnancy and child birth delivery have adverse influences on the development of hemorrhoids and its worsening. There is a documentation reporting that *otsujito* was successfully applied to these problems.

Honda said that 58% of puerperal women become affected with hemorrhoids, 30% of the women develop hemorrhoids after delivery although they did not have hemorrhoids during pregnancy, and 60% of the women who had hemorrhoids during pregnancy do not have relief within one month after delivery and rather tend to have exacerbated symptoms such as bleeding, prolapse, and pain during the period of one-month-after delivery. He administered otsujito to 30 patients with hemorrhoids observed on the 1st day of the puerperium, reporting the results of significant improvements in four of "painful bowel movements," symptoms "bleeding," "prolapse," and "swelling," slightly effective in 11 patients (36.7%), and quite effective (36.7%) with the overall effectiveness rate of 73.3%2). Akagi, et al. also administered for anal otsujito symptoms during pregnancy/puerperium and obtained mostly similar results³⁾.

- Yoshio T, Yanagida K, Sumiyama Y, et al.: Naijikaku ni taisuru *Otsujito* no Rinsho Koka, Journal of New Remedies and Clinics 40:2087-2096, 1991
- Honda T, et al.: Fujin to Ji-shikkan-sono 4 Kampo (*Otsujito*) no Koka – Bosei-Eisei, Vol. 31 No. 1, 1990

3) Akagi K, et al.: Ninshin/Sanjyoku no Komon Shojyo eno *Otsujito* no Toyo Koka, Kampo Shinryo Vol. 15 No. 3, P41-42, 1986



Ominedo is the only professional manufacturer of herbal extracts.

Poria Powder with Five Herbs

Wu-Ling-San goreisan

Composition

Arisma rhizoma

Tuckahoe

Atractylodes ovatae rhizoma

Umbellate pore fungus

Cinnamon bark





Ominedo Pharmaceutical Industry Co., Ltd.

574, Nenarigaki, Yamatotakada-City, Nara 635-0051, Japan URL: WWW.ominedo.co.jp

Contact : info@ominedo.co.jp

Phone: (81) 745-22-3601 Fax: (81) 745-23-2540

Kanebo Pharmaceutical, Ltd.

Like the cherry trees along Potomac River, Kanebo wishes to play a role of the bridge for friendship and health between Japan and U.S.A.



History of the Cherry Trees in Washington, D.C.

The plantings of cherry trees originated in 1912 as gift of friendship to the United States from the people of Japan. In Japan, the flowering cherry tree or "Sakura", as it is called by the Japanese people, is one of the most exalted flowering plants. The beauty of the cherry blossom is a potent symbol equated with evanescence of human life and epitomizes the transformations Japanese Culture has undergone through the ages.

Excerpted from National Park Service