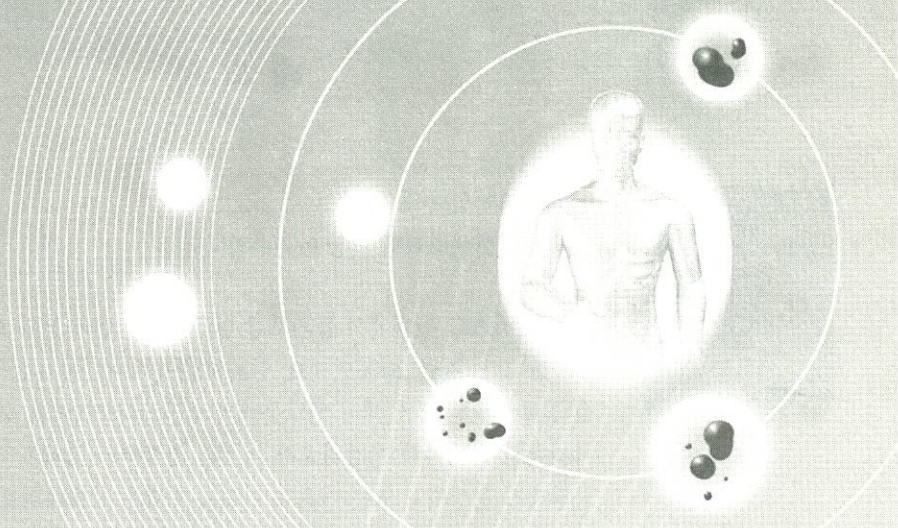


2011 대한한의학회 학술대회

주제 자율신경관련병증

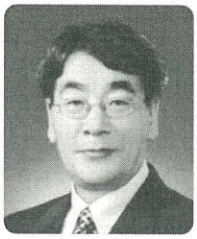
일시 2011년 11월 6일(일) 13:00 ~ 18:00

장소 대한한의사협회 회관 5층 대강당

주최 대한한의학회

KOMS 대한한의학회

대 회 사



안녕하십니까.
대한한의학회 회장 이종수입니다.

올해 유네스코 총회에서 동의보감 발간 400주년이 되는 2013년을 '유네스코 기념의 해'로 선정하였습니다. 지난 2009년 7월, 동의보감이 세계기록유산으로 등재되어 유네스코의 숭고한 사명을 공유한다는 점이 세계 의료문화 발전에 크게 기여한 것으로 평가받은 것입니다. 이처럼 국제사회에서 한의학과 한방의료가 가지는 경쟁력이 강해지고 한의학과 한방의료에 대한 국제적인 공감대가 형성되고 있는 가운데 이렇게 뜻깊은 학술대회를 개최하게 되어 대단히 기쁩니다.

먼저, 바쁘신 가운데 이 자리에 참석해 주신 대한한의사협회 김정곤 회장님과 멀리 일본에서 오신 일본동양의학회 이시카와 토모아키 회장님 및 발표자분들께 깊은 감사의 말씀 드립니다.

금번 학술대회에서는 "자율신경관련병증"이라는 주제 하에 강연을 준비하였습니다. 길항작용을 통해 인체의 기능을 원활히 작용시키는 자율신경과 관련된 병증을 한의학적인 관점에서 다루고자 합니다. 특히 한방의료의 다양화 및 국제화 차원에서 일본의 저명한 동양의학 전문가의 강연을 기획하였습니다. 이 강연이 회원 여러분들의 진료 및 연구에 큰 도움이 되기를 희망하며, 앞으로도 한일 양국의 학술적인 교류를 지속하여, 상호간의 전통의학이 발전해 나갈 수 있기를 바랍니다.

또한, 이번 학술대회에서는 올해로 열 번째를 맞는 학술대상 시상식이 함께 진행됩니다. 국내 한의학 분야의 학술활동을 독려하고, 한의학 연구 분야에서 뛰어난 업적을 이루고 있는 분들을 격려하기 위해 이 같은 상을 제정하여 매년 시상하고 있습니다. 수상자 분들께 축하의 말씀을 전하며, 앞으로도 한의학 분야의 연구 활동이 활발히 이루어져 한의학과 한방의료 발전의 초석을 굳건히 다질 수 있기를 기원합니다.

끝으로, 이번 학술대회의 성공적인 개최를 위해 오랜 시간 심혈을 기울여주신 대한한의학회 임직원 여러분과 훌륭한 자료를 준비해 주신 발표자 여러분께 진심으로 감사드립니다. 또한 지금도 전국 곳곳에서 한방의료의 발전과 국민 건강을 위해 자신의 자리에서 묵묵히 노력하고 계신 한의사 회원 여러분의 노고에도 진심으로 감사의 말씀을 전합니다.

감사합니다.

2011. 11. 6

대한한의학회 회장 이 종 수

격 려 사

안녕하십니까?
대한한의사협회 회장 김 정 곤 입니다.

먼저, 한의학 학술 발전과 정보 교류의 장인 2011 대한한의학회 학술대회 개최를 진심으로 축하드립니다.

이번 학술대회를 준비하기 위해 수고하신 대한한의학회 이종수 회장님께 감사드리며, 일본에서 이곳까지 먼 길을 마다 않고 찾아주신 이시카와 토모아키 일본동양의학회 회장님께도 감사의 말씀을 드립니다. 자율신경관련병증을 주제로 열리는 이번 2011 대한한의학회 학술대회는 자율신경계 질환과 관련된 한의학적 치료법과 더불어 일본의 화한의학(和漢 學)적 치료법에 대한 소개와 최신 연구 결과들이 발표될 예정입니다.

이번 학술대회가 전통의학과 서양의학에서 바라보는 스트레스와 자율신경계와의 관계, 침술을 활용한 갱년기장애 치료에 대한 분석 등 다양한 발표와 연구를 통해 한의학과 화한의학의 구체적인 작용기전과 효능에 대한 심도 깊은 이해를 돕는 자리가 되길 바랍니다.

또한 이번 학술대회를 계기로 한국과 일본 간 전통의학 학술교류 활성화의 근간이 마련되기를 바라며, 앞으로도 활발하고 지속적인 교류를 통해 양국 전통의학의 상호 발전을 이뤄나가기를 기대합니다.

아울러 이번 학술대회에서는 지난 1년간 한의학 학술 발전에 기여한 연구자들의 업적을 기리고 격려하는 학술대상 시상식도 함께 개최됩니다. 수상자 여러분들께 뜨거운 축하와 감사의 박수를 보내며, 앞으로 학술대상 시상식이 한의학 학술 연구의 진흥을 독려하고 이끌어나가는 뜻 깊은 자리로 발전해나가기를 기원합니다.

앞으로도 대한한의학회 학술대회가 한의학의 우수성을 널리 알리고 이를 객관적, 체계적으로 증명해나가는 학술 성과들을 효과적으로 소개하는 대표적인 한의학 학술 공론의 장으로 성장해나가기를 바랍니다. 끝으로 오늘 학술대회와 학술대상 시상식을 준비하기 위해 애쓰신 모든 대한한의학회 임직원 여러분들의 노고에 다시 한 번 감사의 말씀을 드립니다. 오늘 이 자리에 참석하신 모든 분들의 가정에 언제나 건강과 행복이 가득하기를 기원 드립니다.

감사합니다.

2011. 11. 6

대한한의사협회 회장 김 정 곤

PROGRAM

사회: **인창식** 대한한의학회 기획총무이사

시 간	내 용	
13:00 ~ 13:10	개회식	
13:10 ~ 14:10	Frequent Kampo Formulae in Community Health Care in Japan 村松慎一(Jichi Medical University)	좌장 : **이종수** (대한한의학회 회장) 石川友章 (일본동양의학회 회장)
14:10 ~ 15:10	Stress, Autonomic nervous system and East-West medicine 正村謙二(関東労災病院)	
15:10 ~ 15:30	*Coffee Break*	
15:30 ~ 16:10	Acupuncture for vasomotor menopausal symptoms: A systematic review **조성훈**(경희대학교 한의과대학)	좌장 : **손인철** (대한한의학회 부회장) **장현진** (대한한의학회 부회장)
16:10 ~ 16:50	Evaluation of Autonomic Nervous Function in Patients with Functional Dyspepsia using Ryodoraku, HRV, EGG, and Bowel Sound Parameters **김소연**(부산대학교 한의학전문대학원)	
16:50 ~ 17:50	학술대상 시상식 및 발표	
17:50 ~ 18:00	폐회식	

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2011
대한한의학회 학술대회

Frequent Formulae of current Kampo Medicine in Japan

村松慎一

Jichi Medical University

Abstract

We surveyed the current state of use of Kampo products in community health care, using postal questionnaires to the clinicians who are Jichi Medical University graduates and were working in hospitals or clinics with 300 beds or less. There were 679 effective responders (44%) across Japan. Of them, 30% were positive users of Kampo products in daily clinical care; 45%, occasional users (for a few patients weekly); 22%, rare users (for special reasons); and the remaining 3% prescribed no Kampo formulations. Frequent formulae were shakuyakukanzoto (芍薬甘草湯), daikenchuto (大建中湯), kakkonto, rikkunshito (六君子湯), and hochuekkito (補中益気湯), most being extract products and a few being decoctions. The five frequent formulae mentioned above are included in the top ten formulae in production and import values of Kampo products announced by the Japan Kampo Medicines Manufacturers Association on the basis of the "Pharmaceutical Industry Productions Annual Statistics Report" in 2009. In another questionnaire survey involving 101 Kampo specialists about "my favorite formulae," conducted by the magazine Journal of Kampo Medicine, the top ten formulae were hochuekkito, hachimijiogan (八味地黄丸), keishibukuryogan (桂枝茯苓丸), saikokeishito (柴胡桂枝湯), saikokeishikankyoto (柴胡桂枝乾姜湯), rikkunshito, shimbuto (真武湯), kamishoyosan, tokisyakuyakusan, and hangekobokuto (半夏厚朴湯). The frequent formula hochuekkito that Kampo specialists and non-specialists prefer in common is effective for restoration of both physical and mental fatigue so that it is supposed to be popularly used in today's stressful society. Shakuyakukanzoto is prescribed as an analgesic for neuralgia or arthralgia by non-specialists in communities. Daikenchuto seems to be promoted through public relation activities by pharmaceutical companies. The further spread of Kampo medicine in community health care will require appropriate education and research.

Note: The questionnaire survey by Jichi Medical University was supported by a Health and Labour Sciences Research Grant (Research on Region Medical) from the Ministry of Health, Labour and Welfare.

Kampo 漢方_

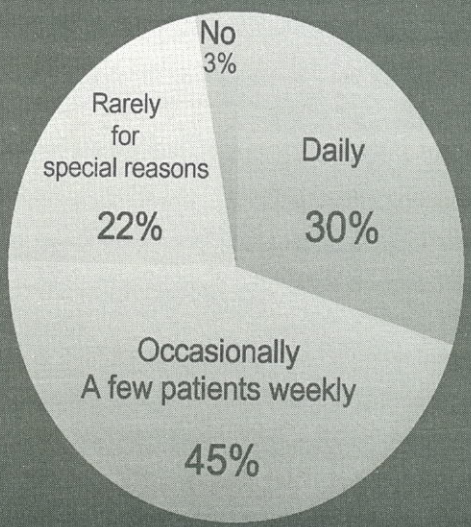
- Kampo is a general term for the unique system of traditional medicine developed in Japan.
- The word "Kampo" is a composite of the two words, "Kan" and "po". Kan (漢Han) referring to ancient China (or ancient Chinese) and po (方ho) to medicine or a way of treatment.

- In 2010, to obtain underlying data for future education, we surveyed the current state of use of Kampo products in community health care.
- Using postal questionnaires to the clinicians who are Jichi Medical University graduates and working in hospitals and clinics with 300 beds or less.
- 679 effective responders (44%) across Japan.

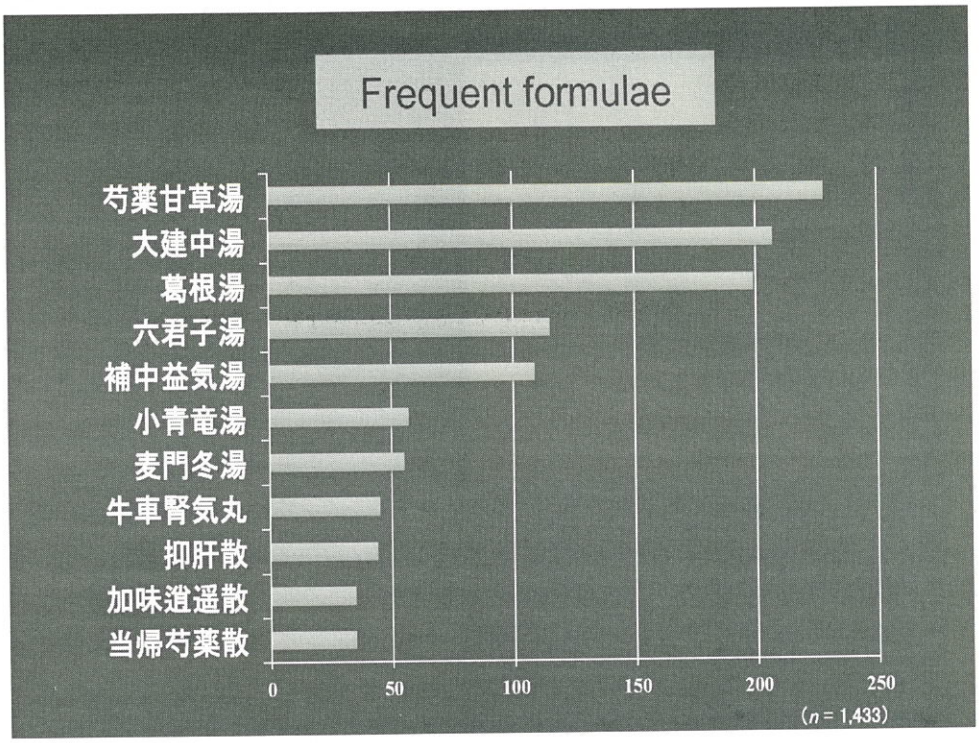
自治医科大学
Jichi Medical University

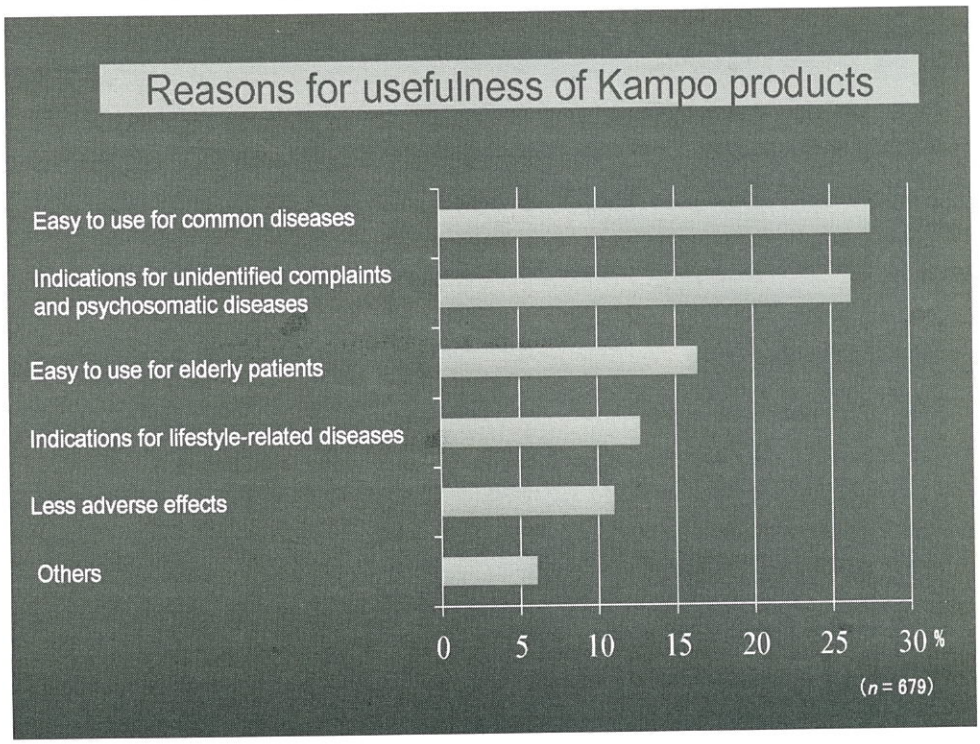
- Established in 1972.
- To secure and improve the medical treatment and the welfare to the habitants in the area not to fill it with sufficiently.
- Managed by the educational foundation which was co-founded by 47 prefectural governments.

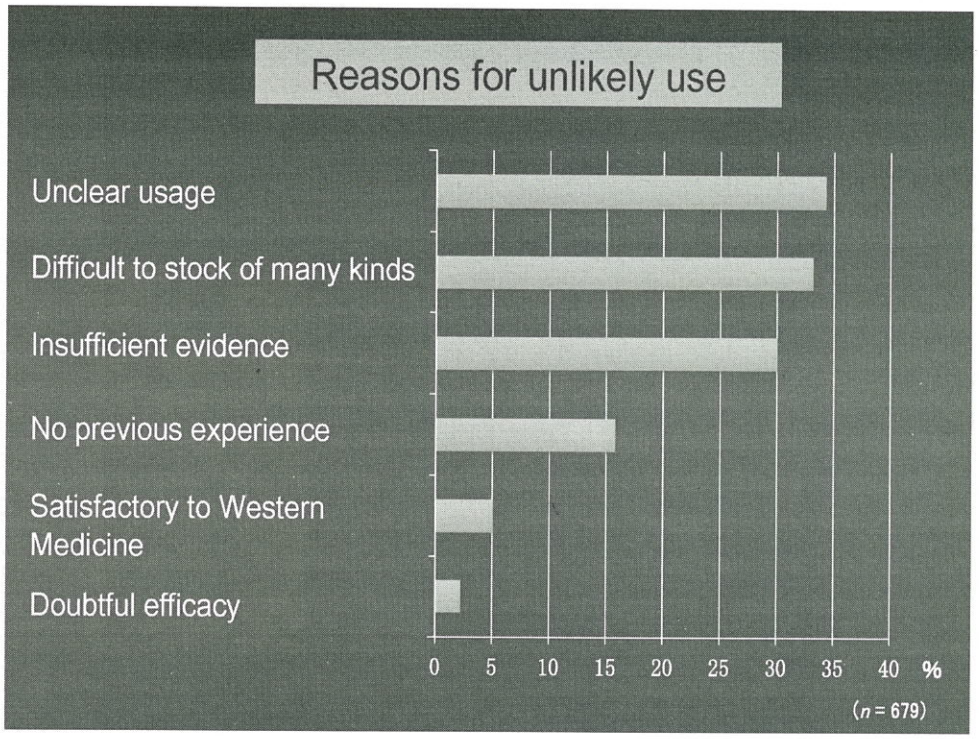
How often do you use Kampo products ?

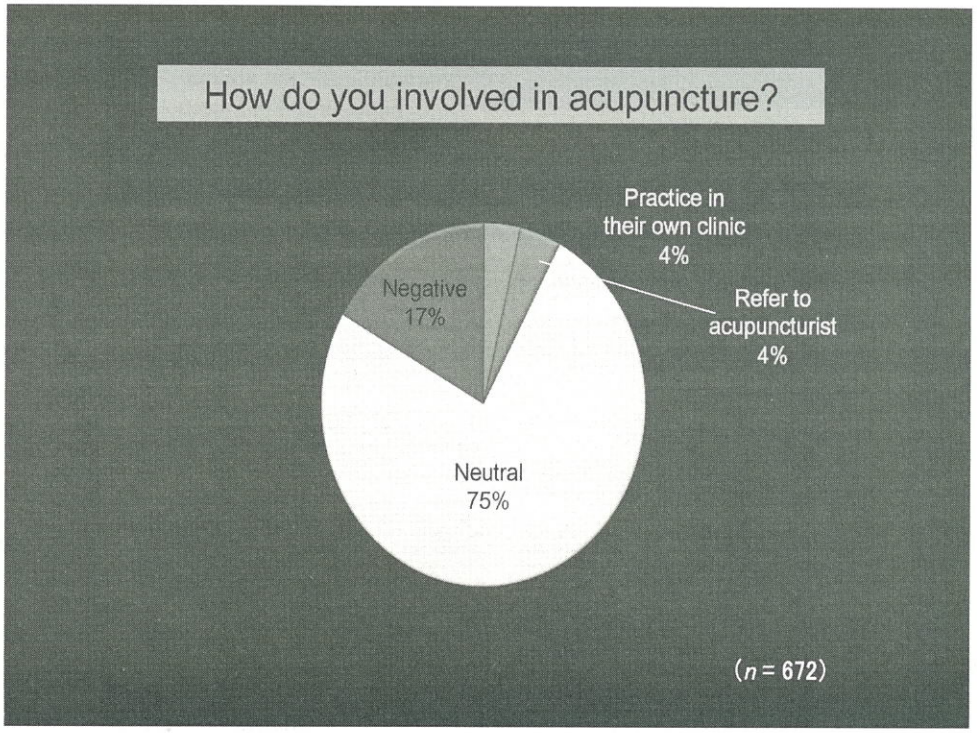


(*n* = 675)


Frequent formulae
芍薬甘草湯
大建中湯
葛根湯
六君子湯
補中益気湯
小青竜湯
麦門冬湯
牛車腎気丸
抑肝散
加味逍遥散
当帰芍薬散
0
50
100
150
200
250
(n = 1,433)


Reasons for usefulness of Kampo products
Easy to use for common diseases
Indications for unidentified complaints and psychosomatic diseases
Easy to use for elderly patients
Indications for lifestyle-related diseases
Less adverse effects
Others
0
5
10
15
20
25
30 %
(n = 679)


Reasons for unlikely use
Unclear usage
Difficult to stock of many kinds
Insufficient evidence
No previous experience
Satisfactory to Western Medicine
Doubtful efficacy
0 5 10 15 20 25 30 35 40 %
(n = 679)


How do you involved in acupuncture?
Practice in their own clinic 4%
Refer to acupuncturist 4%
Negative 17%
Neutral 75%
(n = 672)

Indications of acupuncture

- Low back pain 30%
- Shoulder stiffness 22%
- Neck-Shoulder pain
- Sciatic neuralgia
- Knee arthralgia
- Dizziness
- Headache
- Tinnitus

(*n* = 128)

Effective for knee osteoarthritis.

However,

No difference between real and sham!

Annals of Internal Medicine

Acupuncture and Knee Osteoarthritis

A Three-Armed Randomized Trial

Hanns-Peter Scharf, MD; Ulrich Mansmann, PhD; Konrad Streitberger, MD; Steffen Witte, PhD; Jürgen Krämer, MD; Christoph Maier, MD; Hans-Joachim Trampisch, PhD; and Norbert Victor, PhD

Background: Despite the popularity of acupuncture, evidence of its efficacy for reducing pain remains equivocal.

Objective: To assess the efficacy and safety of traditional Chinese acupuncture (TCA) compared with sham acupuncture (needling at defined nonacupuncture points) and conservative therapy in patients with chronic pain due to osteoarthritis of the knee.

Design: Randomized, controlled trial.

Setting: 315 primary care practices staffed by 320 practitioners with at least 2 years' experience in acupuncture.

Patients: 1007 patients who had had chronic pain for at least 6 months due to osteoarthritis of the knee (American College of Rheumatology [ACR] criteria and Kellgren–Lawrence score of 2 or 3).

Interventions: Up to 6 physiotherapy sessions and as-needed anti-inflammatory drugs plus 10 sessions of TCA, 10 sessions of sham acupuncture, or 10 physician visits within 6 weeks. Patients could request up to 5 additional sessions or visits if the initial treatment was viewed as being partially successful.

Measurements: Success rate, as defined by at least 36% improvement in Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) score at 26 weeks. Additional end points were WOMAC score and global patient assessment.

Results: Success rates were 53.1% for TCA, 51.0% for sham acupuncture, and 29.1% for conservative therapy. Acupuncture groups had higher success rates than conservative therapy groups (relative risk for TCA compared with conservative therapy, 1.75 [95% CI, 1.43 to 2.13]; relative risk for sham acupuncture compared with conservative therapy, 1.73 [CI, 1.42 to 2.11]). There was no difference between TCA and sham acupuncture (relative risk, 1.01 [CI, 0.87 to 1.17]).

Limitations: There was no blinding between acupuncture and traditional therapy and no monitoring of acupuncture compliance with study protocol. In general, practitioner–patient contacts were less intense in the conservative therapy group than in the TCA and sham acupuncture groups.

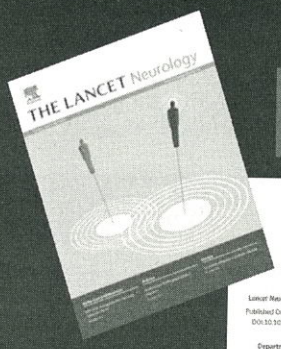
Conclusions: Compared with physiotherapy and as-needed anti-inflammatory drugs, addition of either TCA or sham acupuncture led to greater improvement in WOMAC score at 26 weeks. No statistically significant difference was observed between TCA and sham acupuncture, suggesting that the observed differences could be due to placebo effects, differences in intensity of provider contact, or a physiologic effect of needling regardless of whether it is done according to TCA principles.

www.annals.org

Ann Intern Med. 2006;145:12-20.

For author affiliations, see end of text.

Central Registration No. ISRCTN27450856.



Effective for prophylaxis of migraine.

However,
No difference between real and sham!

Efficacy of acupuncture for the prophylaxis of migraine: a multicentre randomised controlled clinical trial

Hans-Christoph Diener, Kai Kronfeld, Gabriele Boewing, Margitta Lungenhausen, Christoph Maier, Albrecht Molsberger, Martin Tegenthoff, Hans-Joachim Trampisch, Michael Zenz, Rolf Meinert for the GERAC Migraine Study Group

Lancet Neurol 2006; 5: 310–16
Published Online March 2, 2006
DOI:10.1016/S1474-4422(06)70333-3

Department of Neurology, University Essen, Essen, Germany (H-C Diener MD); Koordinierungszentrum für Klinische Studien, Johannes Gutenberg-University, Mainz, Germany (K Kronfeld PhD, R Meinert PhD); Forschungsgruppe Akupunktur und Medizin, Düsseldorf, Germany (G Boewing MD, A Molsberger MD); Department of Pain Management, BG-Kliniken Bergmannsheil, Ruhr-University, Bochum, Germany (M Lungenhausen MD, C Maier MD); Department of Neurology, BG-Kliniken Bergmannsheil, Ruhr-University, Bochum, Germany (M Tegenthoff MD); Department of Medical Informatics, Statistics and Epidemiology, Ruhr University Bochum, Germany

Summary

Background Our aim was to assess the efficacy of a part-standardised verum acupuncture procedure, in accordance with the rules of traditional Chinese medicine, compared with that of part-standardised sham acupuncture and standard migraine prophylaxis with beta blockers, calcium-channel blockers, or antiepileptic drugs in the reduction of migraine days 26 weeks after the start of treatment.

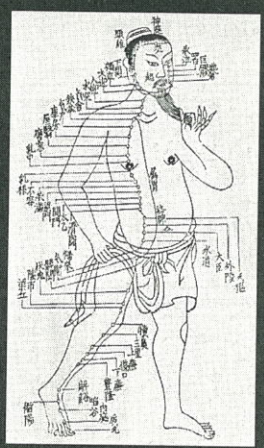
Methods This study was a prospective, randomised, multicentre, double-blind, parallel-group, controlled, clinical trial, undertaken between April 2002 and July 2005. Patients who had two to six migraine attacks per month were randomly assigned verum acupuncture (n=313), sham acupuncture (n=339), or standard therapy (n=308). Patients received ten sessions of acupuncture treatment in 6 weeks or continuous prophylaxis with drugs. Primary outcome was the difference in migraine days between 4 weeks before randomisation and weeks 23–26 after randomisation. This study is registered as an International Standard Randomised Controlled Trial, number ISRCTN52683557.

Findings Of 1295 patients screened, 960 were randomly assigned to a treatment group. Immediately after randomisation, 125 patients (106 from the standard group) withdrew their consent to study participation. 794 patients were analysed in the intention-to-treat population and 443 in the per-protocol population. The primary outcome showed a mean reduction of 2·3 days (95% CI 1·9–2·7) in the verum acupuncture group, 1·5 days (1·1–2·0) in the sham acupuncture group, and 2·1 days (1·5–2·7) in the standard therapy group. These differences were statistically significant compared with baseline ($p<0·0001$), but not across the treatment groups ($p=0·09$). The proportion of responders, defined as patients with a reduction of migraine days by at least 50%, 26 weeks after randomisation, was 47% in the verum group, 39% in the sham acupuncture group, and 40% in the standard group ($p=0·133$).

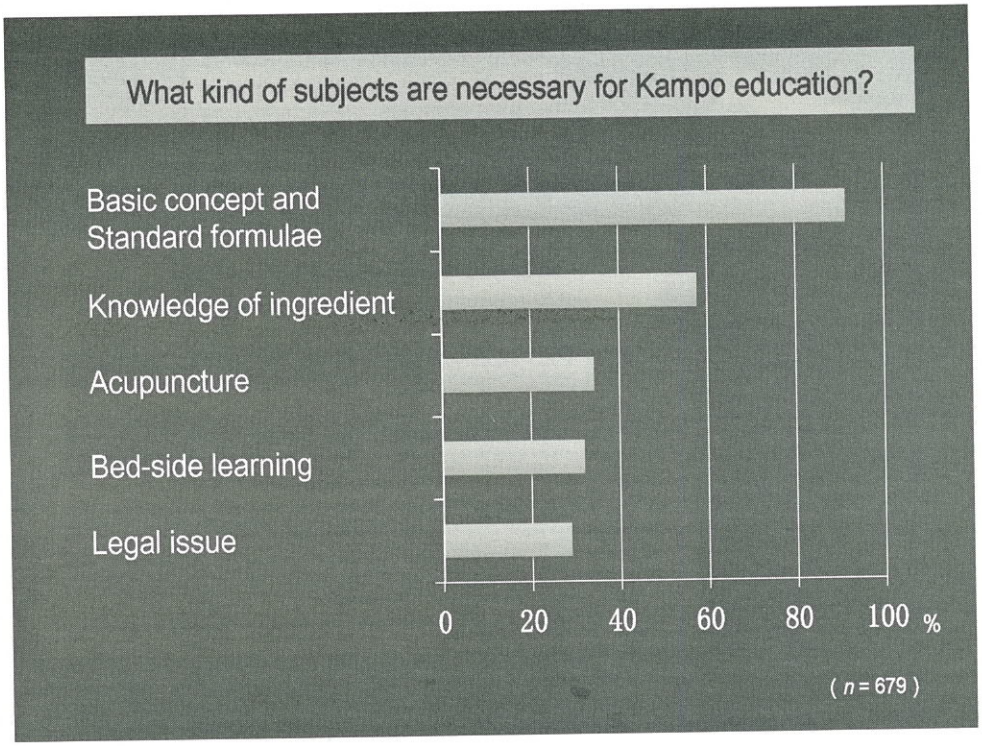
Interpretation Treatment outcomes for migraine do not differ between patients treated with sham acupuncture, verum acupuncture, or standard therapy.

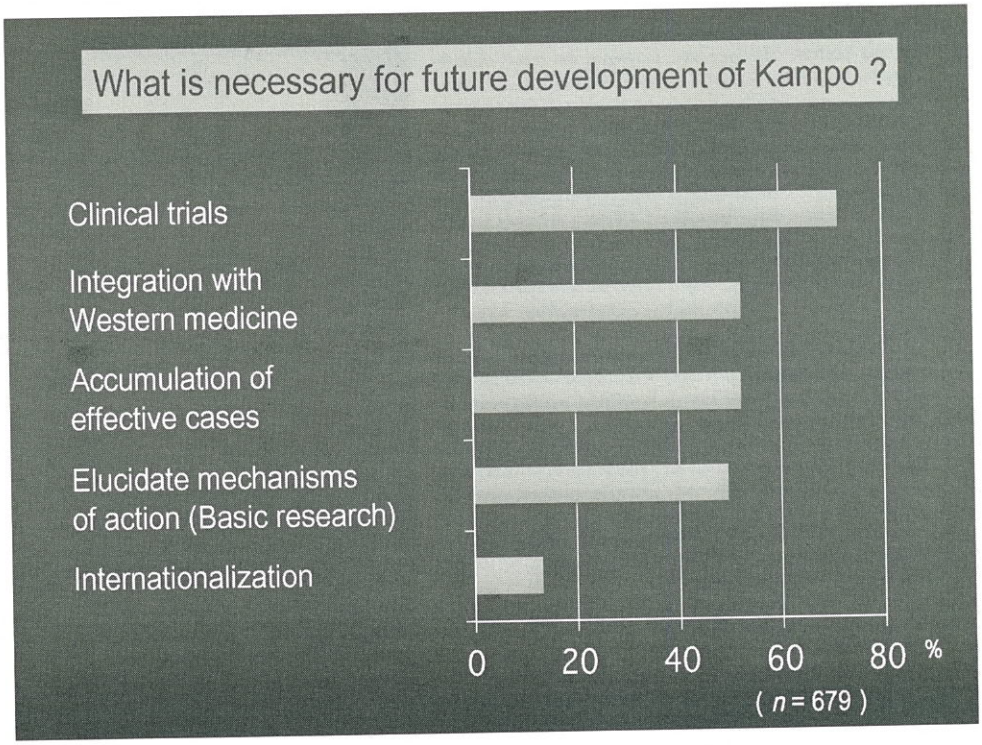
TO THE EDITOR: The impressive finding in the recent study by Scharf and colleagues (1) is that treatment outcomes do not statistically significantly differ between patients treated with sham acupuncture and those treated with real acupuncture. A similar result was reported in a previous study for prophylaxis of migraine (2). Inherent difficulties in the use of sham acupuncture procedures make interpreting the results difficult. What is verum or real acupuncture? How does it differ from sham acupuncture? Although the study protocol carefully avoided deep insertion and manual stimulation of needles in sham acupunctures, these technical modifications alone do not exclude the possibility that typical acupuncture sensation of deqi can occur. In addition, patients do not have to feel anything on needling for treatment to succeed in some Japanese acupuncture techniques (3). More important, the choice of real and sham acupuncture points is controversial. Diagnosis procedure of traditional Chinese medicine does not depend on blood tests or biomedical techniques but on observable signs and symptoms that are hardly quantified. Even granting pattern recognition is capable of consistent repeatability at least among acupuncturists of similar training, and theoretical variety for selection of points is considerable among international experts. In addition, exact anatomical locations of many acupuncture points are contentious and international standardization is still under way. Building consensus among experts is necessary for more accurate assessment of sham acupuncture.

Shin-ichi Muramatsu, MD, PhD
Jichi Medical University
Tochigi 329-0498, Japan



361 points?


What kind of subjects are necessary for Kampo education?
Basic concept and Standard formulae
Knowledge of ingredient
Acupuncture
Bed-side learning
Legal issue
0
20
40
60
80
100
%
(n = 679)

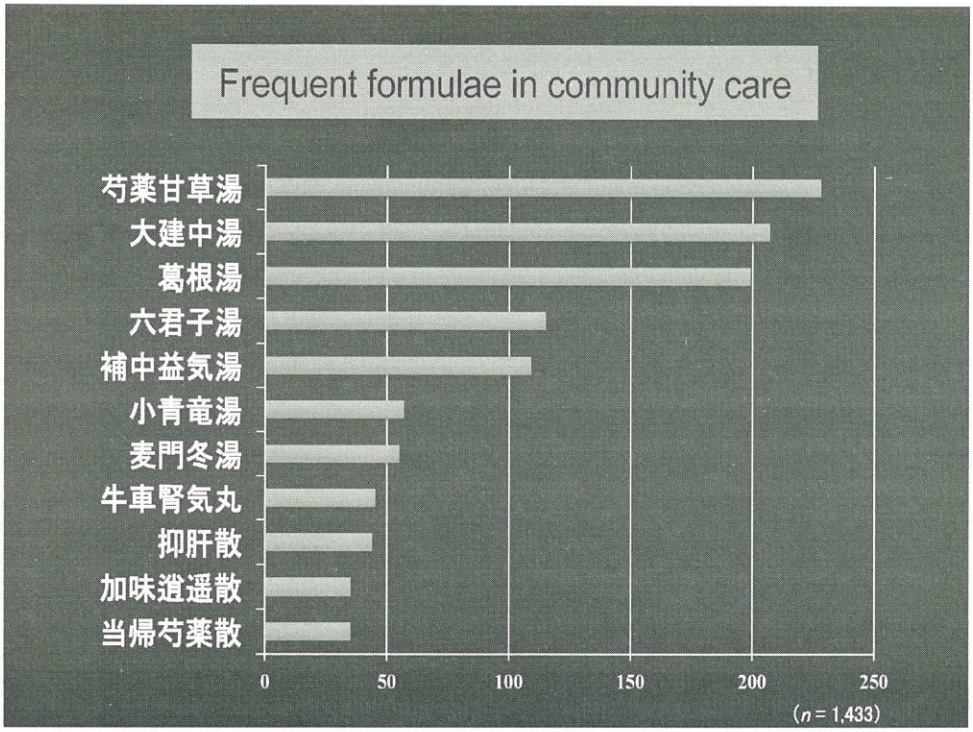

What is necessary for future development of Kampo ?
Clinical trials
Integration with Western medicine
Accumulation of effective cases
Elucidate mechanisms of action (Basic research)
Internationalization
0
20
40
60
80
%
(n = 679)

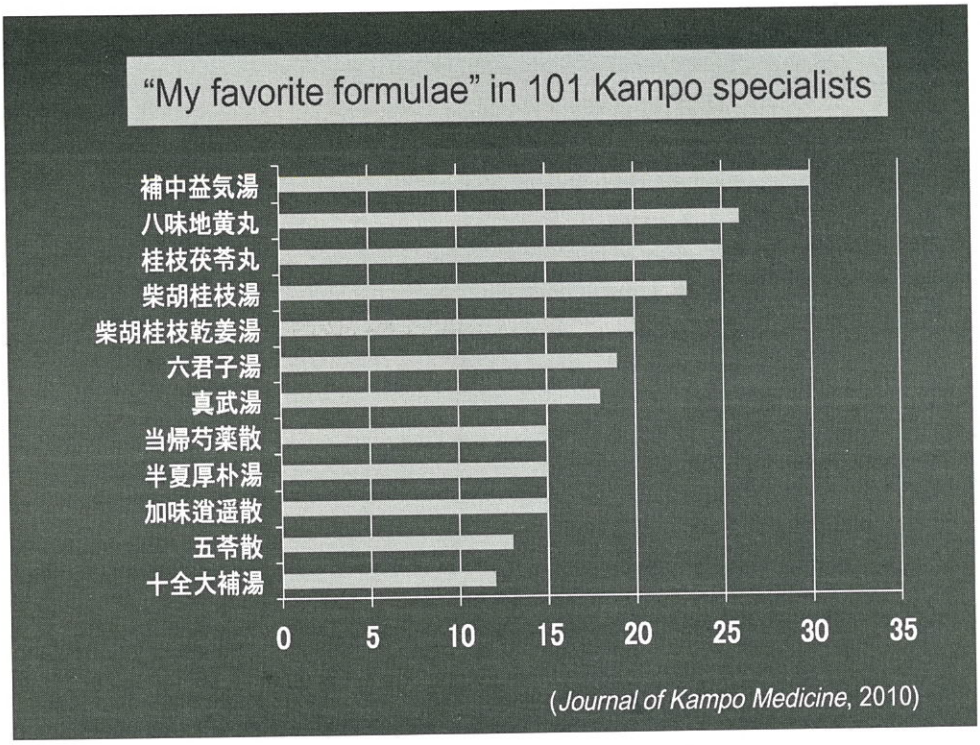
In community care

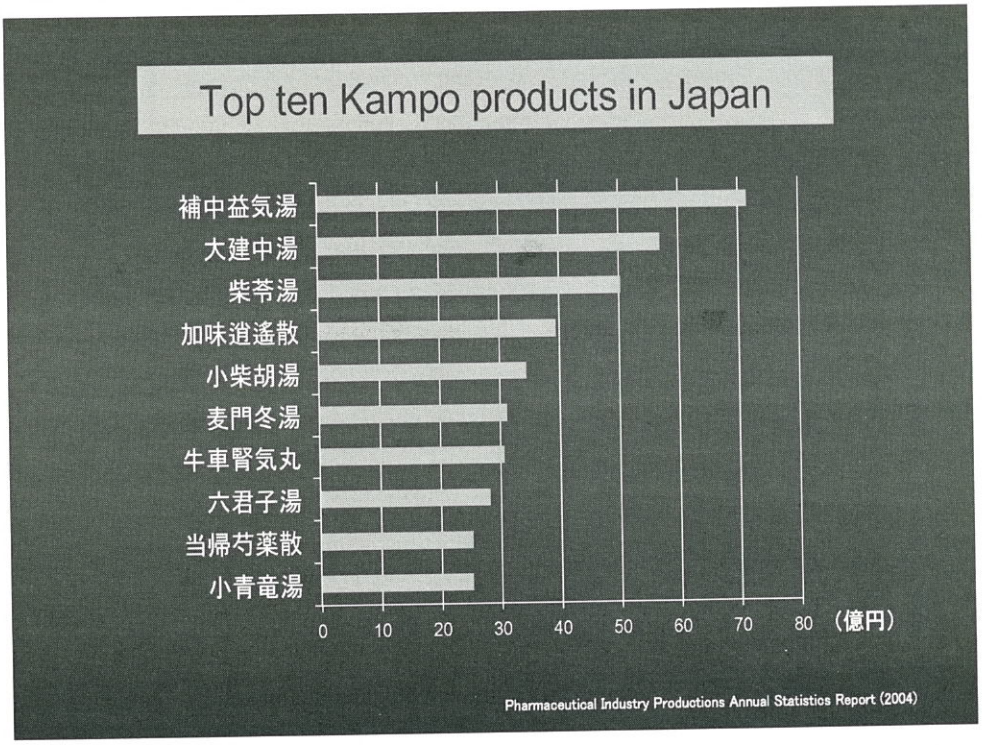
- 97% of clinicians use Kampo products.
- 30% of them prescribe Kampo daily.
- However, 1/3 of the doctors are unclear on usage.
- Formula selection is not always based on pathological recognition from the Oriental medicine perspective.

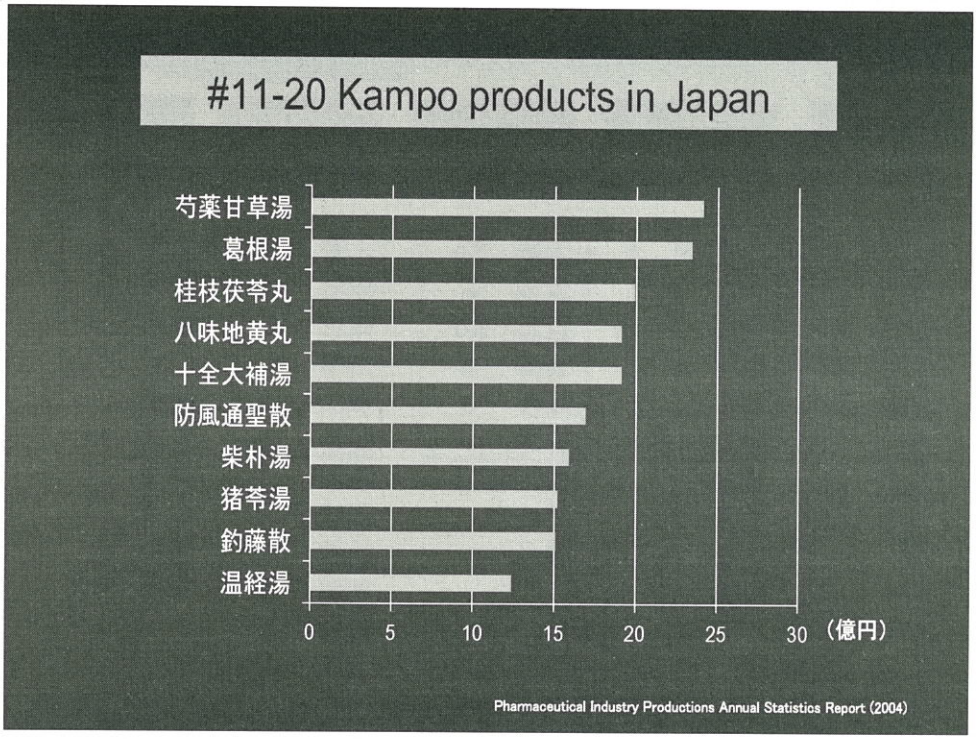
↓

Appropriate education is necessary




"My favorite formulae" in 101 Kampo specialists
補中益気湯
八味地黄丸
桂枝茯苓丸
柴胡桂枝湯
柴胡桂枝乾姜湯
六君子湯
真武湯
当帰芍薬散
半夏厚朴湯
加味逍遥散
五苓散
十全大補湯
0
5
10
15
20
25
30
35
(Journal of Kampo Medicine, 2010)


Top ten Kampo products in Japan
補中益気湯
大建中湯
柴苓湯
加味逍遥散
小柴胡湯
麦門冬湯
牛車腎気丸
六君子湯
当帰芍薬散
小青竜湯
0
10
20
30
40
50
60
70
80
(億円)
Pharmaceutical Industry Productions Annual Statistics Report (2004)



(Year) / Rank	Specialist (2010)	Community care (2010)	Manufacture (2009)
1	補中益気湯	芍薬甘草湯	補中益気湯
2	八味地黄丸	大建中湯	大建中湯
3	桂枝茯苓丸	葛根湯	柴苓湯
4	柴胡桂枝湯	六君子湯	六君子湯
5	柴胡桂枝乾姜湯	補中益気湯	加味逍遥散
6	六君子湯	小青竜湯	麦門冬湯
7	真武湯	麦門冬湯	牛車腎気丸
8	当帰芍薬散 加味逍遥散 半夏厚朴湯	牛車腎気丸	芍薬甘草湯
9		抑肝散	小青竜湯
10		当帰芍薬散 加味逍遥散	葛根湯

六君子湯 (万病回春)		補中益気湯 (内外傷弁惑論)		清暑益気湯 (医学六要)		人参養栄湯 (和剤局方)		十全大補湯 (和剤局方)	
人参	4	人参	4	人参	3.5	人参	3	人参	3
半夏	4	黄耆	4	黄耆	3	黄耆	1.5	黄耆	3
蒼朮	4	蒼朮	4	蒼朮	3.5	白朮	4	蒼朮	3
茯苓	4	当帰	3	当帰	3	当帰	4	当帰	3
陳皮	2	陳皮	2	陳皮	3	陳皮	2	茯苓	3
甘草	1	甘草	1.5	甘草	1	甘草	1	甘草	1.5
大棗	2	柴胡	2	麦門冬	3.5	地黄	4	地黄	3
生姜	1.5	大棗	2	五味子	1	五味子	1	川芎	3
		生姜	1.5	黄柏	1	桂枝	2.5	桂枝	3
		升麻	1			芍薬	2	芍薬	3
						遠志	2		

Eight indications of 補中益気湯 by 津田玄仙

- 手足倦怠 Malaise in limb
- 言語軽微 Weak phonation
- 眼精無力 Vacant look in eyes
- 口中生白沫 White froth in the mouth
- 食失味 Hypogeusia
- 好熱湯 Preference for warm drink
- 臍動悸 Palpitations besides the umbilicus
- 脉散大而無力 Dissipated pulse

(療治経験筆記, 1793)

半夏白朮天麻湯 (1)

Hange byaku jyutsu Temma To

李東垣：脾胃論 (頭痛門)

Hypofunctional constitution 胃腸虚弱,

Regurgitation of gastric fluid 胃内水毒上逆

Dizziness, Headache, Vomiting

半夏 (3)	沢瀉 (1.5)
白朮 (3)	黄耆 (1.5)
茯苓 (3)	人参 (1.5)
陳皮 (3)	黄柏 (1.0)
天麻 (2)	乾姜 (1.5)
麦芽 (2)	生姜 (0.5)

六君子湯 Rikkunshi to

人参 (4)	陳皮 (2)
蒼朮 (4)	大棗 (2)
茯苓 (4)	甘草 (1)
半夏 (4)	生姜 (0.5)

半夏白朮天麻湯 (2)

1 . Hypofunctional constitution	虚証
2 . Dizziness, Dull headache	眩暈, 頭重
3 . Deficiency of digestive function	脾虚
4 . Hypotension	

1 . Dullness after meal

2 . Get offended easily

	呉茱萸湯 Go syuyu to	五苓散 Go rei san	半夏白朮天馬湯 Hange byakujyutsu temma to	苓桂朮甘湯 Ryou kei jyutsu kan to
Headache	(++) 煩燥	(++) 煩悶	(++) ~ (±)	(+) ~ (±)
Nausea	(++)	(++) 水逆	(±)	(-)
Dizziness Vertigo	(±)	(+) Vertigo	(++) Dizziness	(++)
Thirst 口渇	(-)	(++)	(-)	(-)
Oligouria 小便不利	(-)	(++)	(-)	(+)
Gastric fluid retention	(±) 心下逆満	(+) 心下痞	(+) 心下痞満	(+) 心下逆満
Pulse 脈	沈細遅	浮	沈弱	沈緊
Cold state	(++)	(-)	Leg (+)	Leg (+)

(村松睦, 対比で学ぶ漢方入門)

実

- 大承気湯
- 調胃承気湯、小承気湯、厚朴三物湯、柴胡加芒硝湯
- 大柴胡湯
- 柴胡加竜骨牡蛎湯、桃核承気湯
- 小柴胡湯、女神散
- 柴胡桂枝湯
- 柴胡桂枝乾姜湯、加味逍遙散
- 補中益気湯
- 真武湯、人参湯
- 四逆湯、茯苓四逆湯

虚

Formulae containing 朮

- 五苓散
- 桂枝加朮附湯
- 防已黄耆湯
- 消風散
- 当帰芍薬散
- 加味逍遙散
- 越婢加朮湯
- 真武湯
- 人参湯
- 苓桂朮甘湯
- 補中益気湯
- 六君子湯
- 十全大補湯
- 薏苡仁湯
- 疎経活血湯
- 抑肝散
- 治頭瘡一方
- 防風通聖散*
- 五積散
- 帰脾湯*
- 女神散
- 茯苓飲
- 四君子湯
- 平胃散
- 桂枝人参湯
- 半夏白朮天麻湯*
- 抑肝散加陳皮半夏
- 茯苓飲合半夏厚朴湯
- 二朮湯**
- 滋陰至宝湯*
- 滋陰降火湯
- 大防風湯
- 人参養栄湯*
- 柴苓湯
- 胃苓湯**
- 茵蔯五苓散
- 苓姜朮甘湯*
- 啓脾湯
- 清暑益気湯
- 加味帰脾湯

* 白朮
** 白朮 & 蒼朮

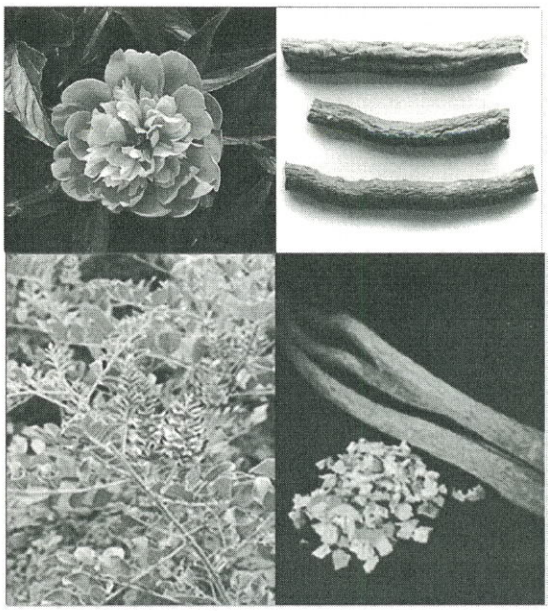
Formulae containing 白朮

- 半夏白朮天麻湯
- 防風通聖散
- 帰脾湯
- 二朮湯*
- 滋陰至宝湯
- 人参養栄湯
- 胃苓湯*
- 苓姜朮甘湯

* Contain both 蒼朮 and 白朮

芍 藥

Paeonia lactiflora Pallas



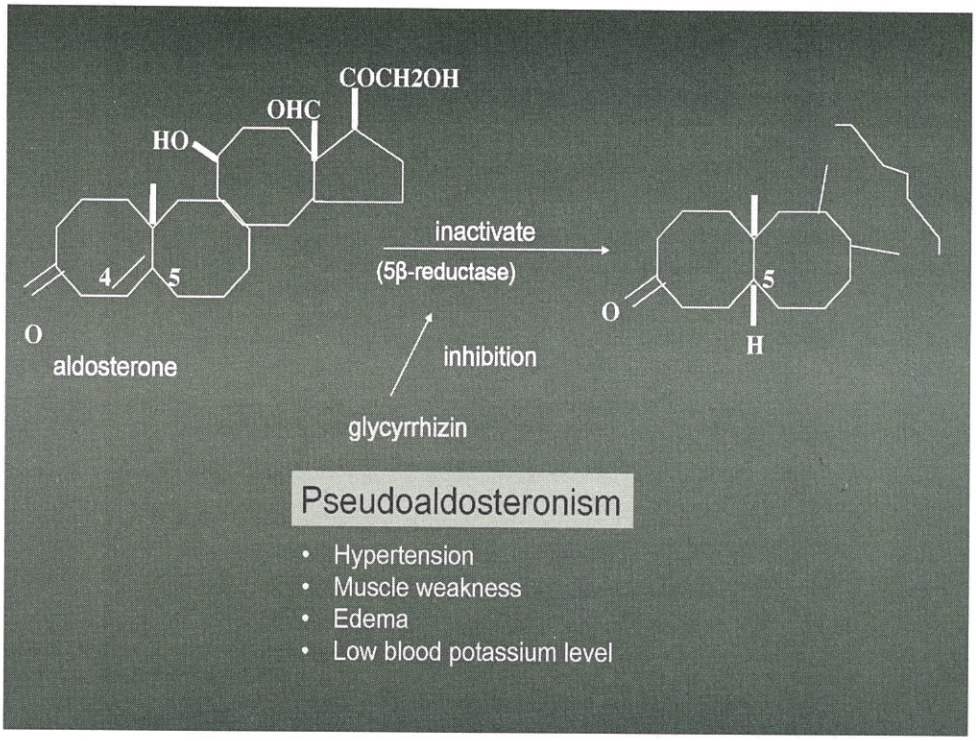
甘 草

Glycyrrhiza uralensis Fischer
Glycyrrhiza glabra

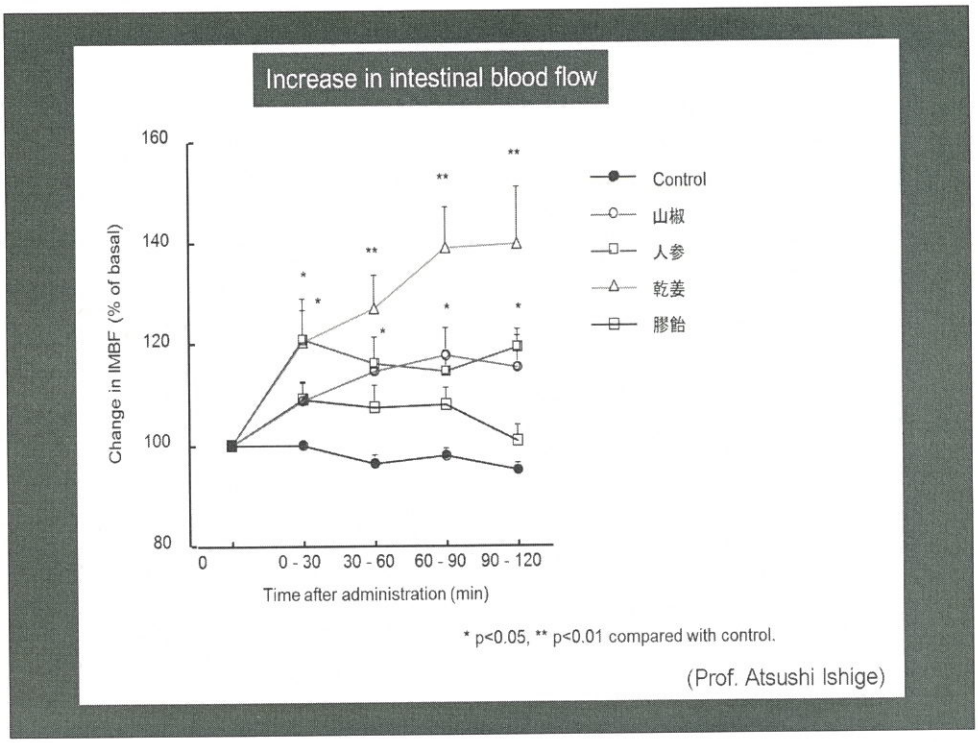
Shoulder stiffness, Headache, Abdominal Pain, · · ·

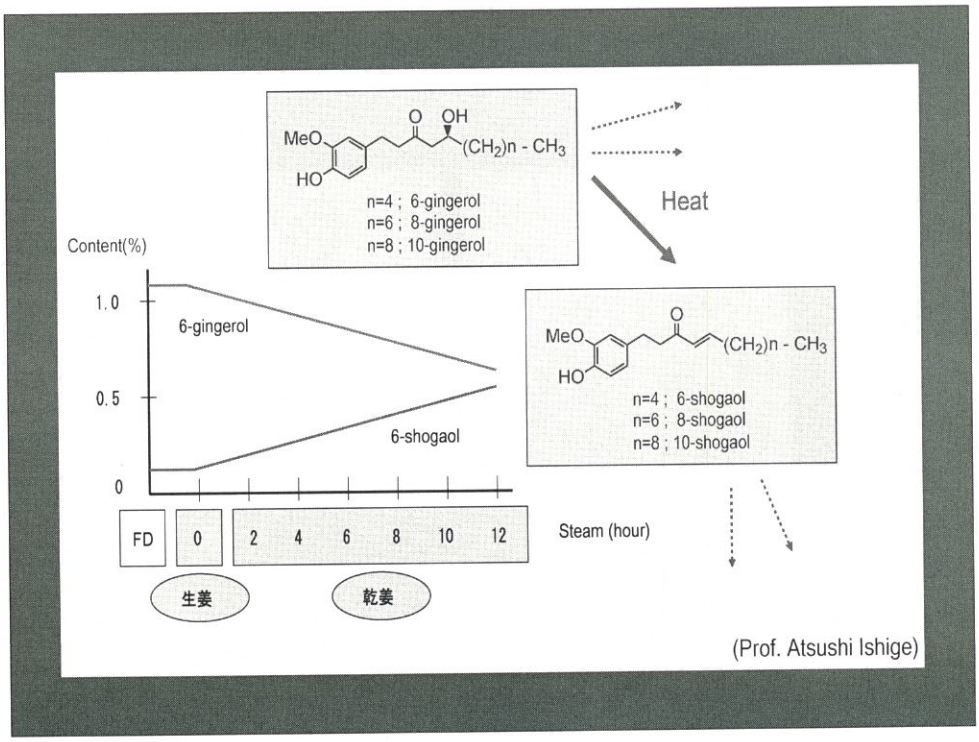
Formulae containing 2.5 g < 甘草

- 黃芩湯
- 甘麥大棗湯
- 五淋散
- 小靑竜湯
- 附子人參湯
- 黃連湯
- 桔梗湯
- 炙甘草湯
- 人參湯
- 乙字湯
- 芎歸膠艾湯
- 芍藥甘草湯
- 排膿散及湯
- 甘草湯
- 桂枝人參湯
- 芍藥甘草附子湯
- 半夏瀉心湯

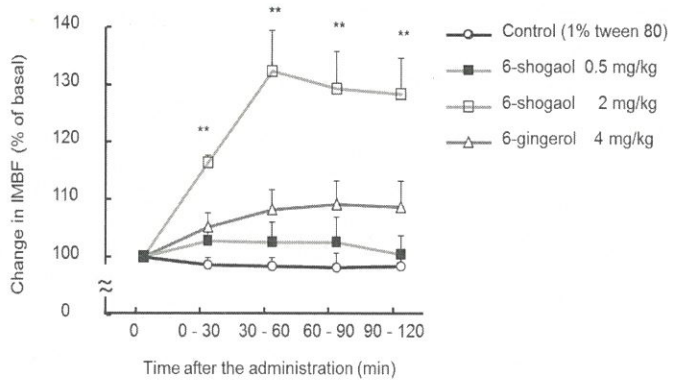

COCH2OH
OHC
HO
4
5
O
aldosterone
inactivate
(5β-reductase)
5
O
H
inhibition
glycyrrhizin
Pseudoaldosteronism
• Hypertension
• Muscle weakness
• Edema
• Low blood potassium level


大建中湯
腹証奇覧
人参
山椒
生姜
膠飴


Increase in intestinal blood flow
Change in IMBF (% of basal)
160
140
120
100
80
0
0 - 30
30 - 60
60 - 90
90 - 120
Time after administration (min)
Control
山椒
人参
乾姜
膠飴
* p<0.05, ** p<0.01 compared with control.
(Prof. Atsushi Ishige)


MeO
HO
O
OH
(CH2)n - CH3
n=4 ; 6-gingerol
n=6 ; 8-gingerol
n=8 ; 10-gingerol
Heat
Content(%)
1.0
0.5
0
6-gingerol
6-shogaol
FD
0
2
4
6
8
10
12
Steam (hour)
生姜
乾姜
n=4 ; 6-shogaol
n=6 ; 8-shogaol
n=8 ; 10-shogaol
(Prof. Atsushi Ishige)

6-shogaol increase intestinal blood flow



** p<0.01 compared with control.

(Prof. Atsushi Ishige)

Formulae containing 乾姜

- 柴胡桂枝乾姜湯
- 半夏瀉心湯
- 小青竜湯
- 人参湯
- 半夏白朮天麻湯
- 桂枝人参湯
- 大防風湯
- 大建中湯
- 当帰湯
- 苓姜朮甘湯
- 苓甘姜味辛夏仁湯
- 黄連湯

駆瘀血剤

桃核承気湯	桂枝茯苓丸	大黄牡丹皮湯	当帰芍薬散
· 桃仁 (5)	· 桂枝 (4)	· 大黄 (2)	· 当帰 (3)
· 桂枝 (4)	· 茯苓 (4)	· 牡丹皮(4)	· 川芎 (3)
· 大黄 (3)	· 牡丹皮(4)	· 桃仁 (4)	· 芍薬 (6)
· 芒硝 (2)	· 桃仁 (4)	· 芒硝 (4)	· 茯苓 (4)
· 甘草(1.5)	· 芍薬 (4)	· 冬瓜子(6)	· 朮 (4)
			· 沢瀉 (4)

当帰芍薬散

芍薬 (4) — Muscle tonus ↓ → dull headache

茯苓 (4)
蒼朮 (4)
沢瀉 (4)
} "Water" balance → Migraine

当帰 (3)
川芎 (3)
} "Blood" balance → Dysmenorrhea

認知症 Dementia

- 喜忘・善忘(黄帝内経)
- 健忘・善忘(神農本草経)
- 健忘(傷寒雑病論)
- 痴呆(神医秘伝)

加味帰脾湯・黄連解毒湯・当帰芍薬散
補中益気湯・八味地黄丸・続命湯
釣藤散・加味温胆湯・抑肝散加陳皮半夏

Behavioral and psychological symptoms of dementia (BPSD)

- Hallucinations
- Paranoid delusions
- Delusional misinterpretation
- Aggressivity
- Depression

- If left untreated, the most troublesome problems handled by caregivers of demented patients.
- Provide the greatest deterioration in quality of life.
- Portend both a faster cognitive decline as well as decreased survival for patients

肝気鬱結

Stress → muscle tonus↑

Get tired easily, Shoulder stiffness, Palpitation, Insomnia, Tremor, Anxiety, Depression

抑肝散

蒼朮	(4)	釣藤鈎	(3)
茯苓	(4)	柴胡	(2)
当帰	(3)	甘草	(1.5)
川芎	(4)		

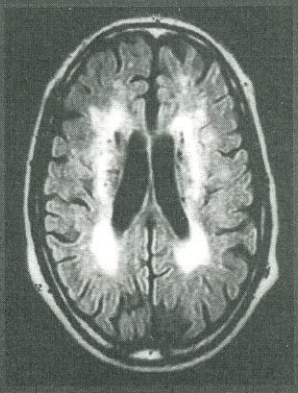
加味逍遙散

蒼朮	(3)	薄荷	(1)
茯苓	(3)	柴胡	(3)
当帰	(3)	甘草	(1.5)
芍薬	(3)	生姜	(1)
牡丹皮	(2)	山梔子	(2)

Degeneration or Stroke ?

1/3 Degeneration
1/3 Stroke
1/3 Mixed

20% of degeneration is
Diffuse Lewy Body Disease (DLB)



釣藤散

Cho to san

Uncaria Hook

本事方(宋)：肝厥頭暈治、頭目清

勿誤宝函口訣：所謂癇症人、気逆甚、頭痛眩暈、或肩背強急目赤、心気鬱塞者治

釣藤鈎(3)	防風(2)
橘皮 (3)	菊花(2)
半夏 (3)	石膏(5～7)
麦門 (3)	生姜(1)
茯苓 (3)	甘草(1)
人参 (2)	

- Middle age <
- Hypofunctional constitution
- Morning headache
- Conjunctival congestion
- Nervous, Hypertension
- Stuck feeling in pit of stomach

七物降下湯

Shichi motsu kouka to

修琴堂(大塚敬節)：

Get tired easily, Diastolic hypertension, Proteinuria

Uncaria Hook

Astragalus Root

当帰	(4)
川芎	(3)
芍薬	(4)
地黄	(3)
釣藤鈎	(3)
黄耆	(3)
黄柏	(2)

＋ 杜仲 (4) → 八物降下湯

＋

黄連	(1.5)
黄柏	(1.5)
黄芩	(3)
梔子	(2)
(魚腥草)	

→ 六物降下湯

黃連解毒湯(1)

肘後方:熱極、心下煩悶、狂言鬼見、起走欲. 煩嘔、不眠得

外台秘要方:大熱盛、煩嘔、呻吟、錯語、不眠得

黃連 1.5
黃柏 1.5
黃芩 3.0
梔子 2.0

前漢
太倉公 (淳于意)

+

柴胡 3.0
連翹 2.0
芍藥 2.0

+

当帰 4.0
地黃 4.0
芍藥 3.0
川芎 3.0

万病回春

温清飮

黃連解毒湯
(外台秘要)
黃連 1.5
黃柏 1.5
黃芩 3
梔子 2

黃解散
(吉益南涯)
黃連 3
黃柏 2
黃芩 2
梔子 1

黃解丸
(湯本求真)
黃連
黃柏
黃芩
梔子
+
大黃

大黃湯
(外台秘要)
黃連
大黃
黃芩
梔子

大金花丸
黃連
黃柏
黃芩
大黃

三黃瀉心湯
黃連
黃芩
大黃

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Professional Experience

2008 ~	present Professor, Divisions of Neurology & Oriental Medicine, Jichi Medical University
1997 ~ 2004	Assistant Professor, Division of Neurology, Jichi Medical School
1995 ~ 1997	Visiting Associate, Hematology Branch, NHLBI, NIH, U.S.A.
1992 ~ 1994	Director of Okuwa Clinic, Gunma, Japan
1985 ~ 1991	Clinical Fellow in Neurology, Jichi Medical School
1983 ~ 1985	Resident in Internal Medicine, Gunma University, Gunma, Japan

Education:

1991	Ph.D., Graduate School of Medical Science, Jichi Medical School
1983	M.D., Jichi Medical School

Award:

2011	Takara Bio Award
2001	Award for excellent research, The Japan Society of Gene Therapy

Recent Publications

1. Asari S, et al., Subregional 6-[18F]fluoro-□-m-tyrosine uptake in the striatum in Parkinson's disease. BMC Neurol. 11:35, 2011.
2. Muramatsu S, et al., Gene therapy for Parkinson's disease. Strategies for the local production dopamine. Gene Therapy & Regulation 5:57-65, 2010.
3. Muramatsu S, et al., A phase I study of aromatic $_{L}$-amino acid decarboxylase gene therapy for Parkinson's disease. Mol Ther. 18:1731-1735, 2010.
4. Krzyzosiak A, et al., Retinoid x receptor gamma control of affective behaviors involves dopaminergic signaling in mice. Neuron. 66:908-920, 2010
5. Kadkhodaei, B, et al., Nurr1 is required for maintenance of maturing and adult midbrain dopamine neurons. JNeurosci, 29:15923-15932, 2009.

Stress, Autonomic nervous system and East-West medicine

正村謙二

関東労災病院

Abstract

Stress theory is a notion which is unavoidable when considering of the autonomic nervous system-related pathophysiology. Since there are various stressors all around us in a modern society, our healthy well-being s are often jeopardized in many ways. Even proper stress for us sometimes does harm to mind and body once it goes above tolerance against the stress. Also, living without any stress in daily life is dull, idle and not so healthy.

The presenter recognizes, in daily clinical practice, the common problems of the distressed people, i.e. exhaustion of their mind and body secondly to the imbalanced autonomic nervous system. In this lecture the presenter shortly reviews the autonomic nervous systems and stress theory.

On the other hand, even though stress theory has not been systemized in ancient times, a certain number of people must had felt stress like modern people had everywhere in Western and Eastern countries as well, and physicians in those days dedicated to treat people with the ill. It goes without saying that we can see such a description from various historical classic medical textbooks in the world. In this modern highly information society, verifying bibliographical history in both Eastern and Western medicine is important for the future perspective. In the lecture, the presenter also reviews the classics briefly from the Oriental medicine, which hopefully, will set off to reconsider pathophysiology of autonomic nervous system-related pathology. Other verification from clinical cases shows Kampo/ Harbal medicine is effective for the treatment and alleviation of autonomic nervous system-stress related illness.

For practitioners like us in a small country around the Far East region, it will be desirable to regard our medical community as one 'small Asia' unit in that, harmonized coexistence of the Eastern and Western medicine encounters around the region. It is preferable that healthcare professionals recognize the differences among cultures and cooperate with respect when considering an appropriate future form of medical practice. So-called Glocalization is crucial in the practice of the Oriental medicine both in daily practice and partnership among healthcare professionals.

The presenter discusses Hwa-byung, which is considered as a Korean culture-bound syndrome and will lead to further niche study between medicine and anthropology as well as traditional / integrated acupuncture, especially in related with the autonomic nervous system.


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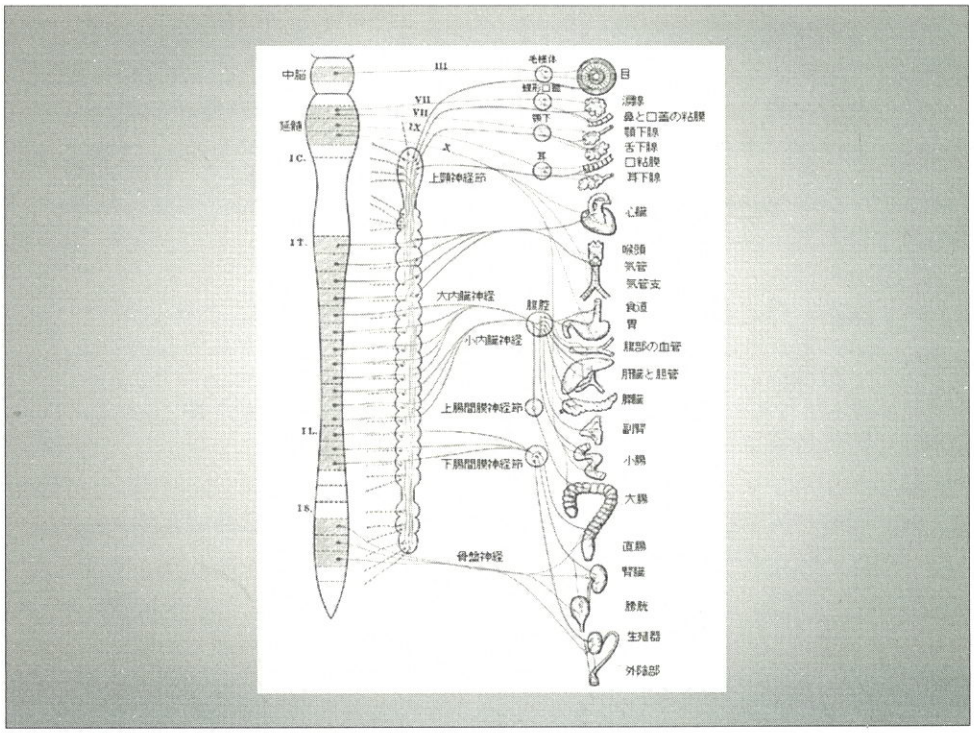
Overview:自律神経系의 生理機能
Review of Stress theory
Stress와 coping、養生
「自律神経失調症」(Autonomic Dystonia)
自律神経疾患과 東西医学
Kampo
Acupuncture
自律神経-免疫-内分泌系
火病再考
総括


中脳
延髄
上頸神経節
大内臓神経
小内臓神経
腹腔
上腸間膜神経節
下腸間膜神経節
骨盤神経
目
涙腺
鼻と口蓋の粘膜
顎下腺
舌下腺
口粘膜
耳下腺
心臓
喉頭
気管
気管支
食道
胃
腹部の血管
肝臓と胆管
膵臓
副腎
小腸
大腸
直腸
腎臓
膀胱
生殖器
外陰部

自律神経系

- 中枢神経に出入りするすべての神経を末梢神経と呼び、末梢神経系は骨格筋や感覚器を支配する体性神経系と、呼吸・循環・消化・生殖などの各器官を支配する自律神経系に機能的に2大別される。

- 末梢神経は、また、脳に出入りする12対の脳神経と脊髄に出入りする31対の脊髄神経よりなる。これらの神経は、感覚神経(＝求心性繊維)と、運動神経(＝遠心性神経)に分けられる。

- 脊髄から左右対で発する体性神経のうち脊髄前根を運動神経が、後根を感覚神経がそれぞれ通る。これをBell-Magendieの法則という。脊髄に入る感覚神経と皮膚感覚との間にはきれいな対応関係がある。

- 自律神経系は交感神経系と副交感神経系からなる。いずれの神経系でも遠心性繊維は中枢神経系から出発したのち、神経節でシナプス接続を行いニューロンを換える。中枢から出て神経節へ向かうニューロンを節前繊維、シナプス接続して効果器へ向かうニューロンを節後繊維という。

(続く)

自律神経系

- 交感神経系の節前繊維は、第1～12胸髄および第1～3腰髄から発し、全身の血管系、胸部、腹部、骨盤内各臓器、瞳孔や皮膚などに分布し、それぞれ特有の働きをしている。 自律神経末端で遊離され、各効果器へ自律神経作用を及ぼす物質を伝達物質という。交感神経の伝達物質の大部分はノルアドレナリンである。

- 副交感神経系は、第III・VII・IX・X脳神経核を起始核とし、これら4つの脳神経と混在して走る頭部副交感神経と、第2～4仙髄から出る仙部副交感神経とからなる。副交感神経は効果器のすぐ近くでニューロンを換えるので節前繊維は長く、節後繊維は短い。副交感神経末端における伝達物質はアセチルコリンである。

- 自律神経節における節前繊維から節後繊維への興奮伝達は化学的伝達であり、伝達物質はすべてアセチルコリンである。

(続)

自律神経系

- 自律神経の機能は、主にその下位中枢（中脳・延髄・脊髄）の反射作用による。一方、高位中枢（大脳皮質・辺縁系・視床下部・小脳）は、下位中枢の反射機能を調節する役割がある。自律神経反射弓の求心性繊維・遠心性繊維には内臓（自律）体性のどちらの神経もなりうるが、この反射弓には最低1個の介在ニューロンが存在する。

- 体内の多くの器官が交感神経・副交感神経の二重支配を受けている。この場合、両神経は拮抗的に働くことが多い。また、交感神経の血管支配にみられるように、絶えず一定のインパルスを効果器に送っている場合があり、これが持続神経支配である。

自律神経失調症

- 身体各科において、さまざまな身体症状を訴えるが、それを説明するだけの身体病変がない病態に対して用いられることが多い。
- “自律神経”という身体面の異常とも聞こえる安易な呼称。明確な診断基準がない。（明らかな自律神経症状に欠ける？）
- 身体表現性障害に含まれる疾患だけでなく、精神病圏まで含まれてきた。

身体表現性障害

- いくつかの疾患をまとめた呼称。
- 身体化障害、疼痛性障害、心気障害、身体醜形障害、身体表現性自律神経機能不全などが含まれる。
- 併存する精神疾患(精神病圏)の診断が重要

- 基本姿勢として、身体症状に関する説明、与薬や処置、環境調整、薬物療法専門家間の紹介・連携への配慮が必要。

스트레스 ・ Coping・ 養生

- 貝原益軒 1630-1714 『養生訓』(1713)

「養生の術は先ず心気を養ふべし。心を和にし、気を平らかにし、いかりと慾とをおさへ、うれひ、思ひ、をすくなくし、心を苦しめず、気をそこなはず。是心気を養ふ要道なり」

Stress management ・ coping の重要性

스트레스 理論

身体的스트레스

- 物理的：温度、気圧、外傷、手術、騒音、放射線、光、熱など
- 生物的：食物、感染、花粉、飢餓、アレルギーなど
- 化学的：薬物、たばこ、アレルギー、中毒、酸素など

情動的스트레스

- 不安、恐怖、緊張、対人関係、災害、戦争、昇進、転勤、別離などの心因

스트레스 学説

- Walter Bradford Cannon（1871-1945）

Homeostasisの概念を提唱したClaude Bernard(1813-1878)の考えを発展

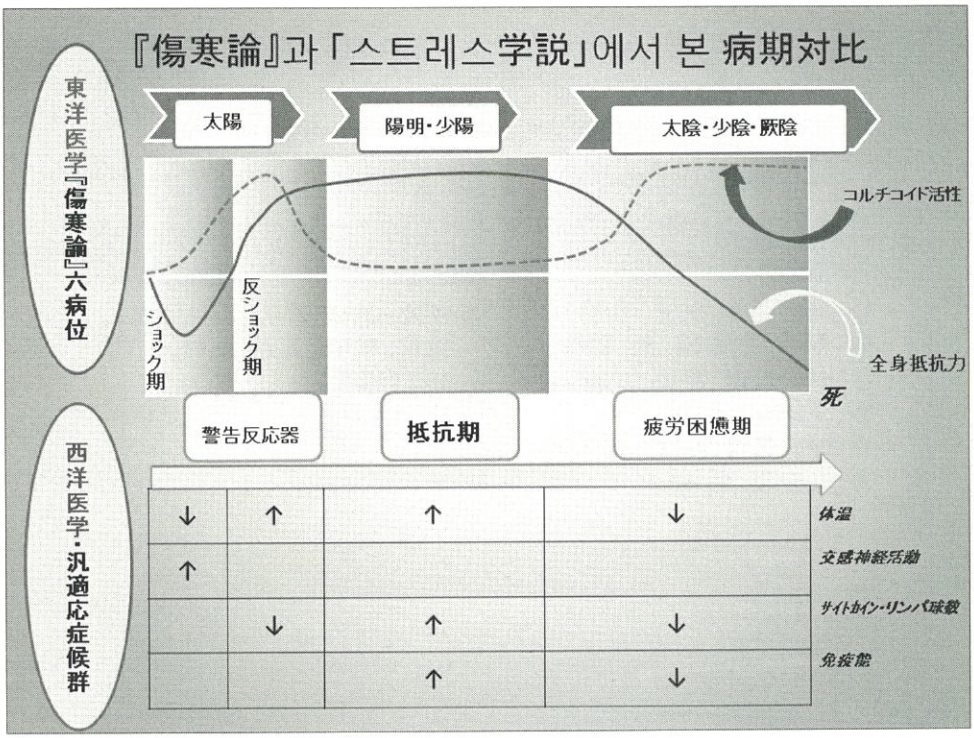
急性ストレス状態下での交感神経系の「緊急反応」

- Hans Selye（1907-1982）

慢性ストレス下での「汎適応症候群」という疾病概念を提唱

"各種有害物質によって引き起こされた症候群"A Syndrome Produced by Diverse Nocuous Agents; Nature 1936 7.4

Stress Trias
副腎肥大
胃・十二指腸潰瘍
胸腺とリンパ節の退縮



East meets *West*

- 統合失調症の陽性症状と陰性症状
- 躁鬱病の躁病期と鬱病期
- 短期精神病性障害
- 急性一過性精神病性障害

東洋の陰陽思想

質的にも機序の面からも次元は全く異なるが、
現象を相対的に論じている点では共通

스트레스 매니지먼트

- リラクゼーション
- イメージトレーニング
- 自律訓練
- アンガーコントロール
- タイムマネージメント
- 認知行動療法

養生

- リラクゼーションテクニックと民間療法 CAM
- 調心・調息 瞑想 座禅
- 芳香浴、森林浴
- マッサージ 手技療法
- 音楽療法
- 食餌療法
- 運動療法


日本経済新聞
夕刊
9月30日
(金曜日)

大衆薬に西洋ハーブ

日本ベーリンガーやゼリア新薬

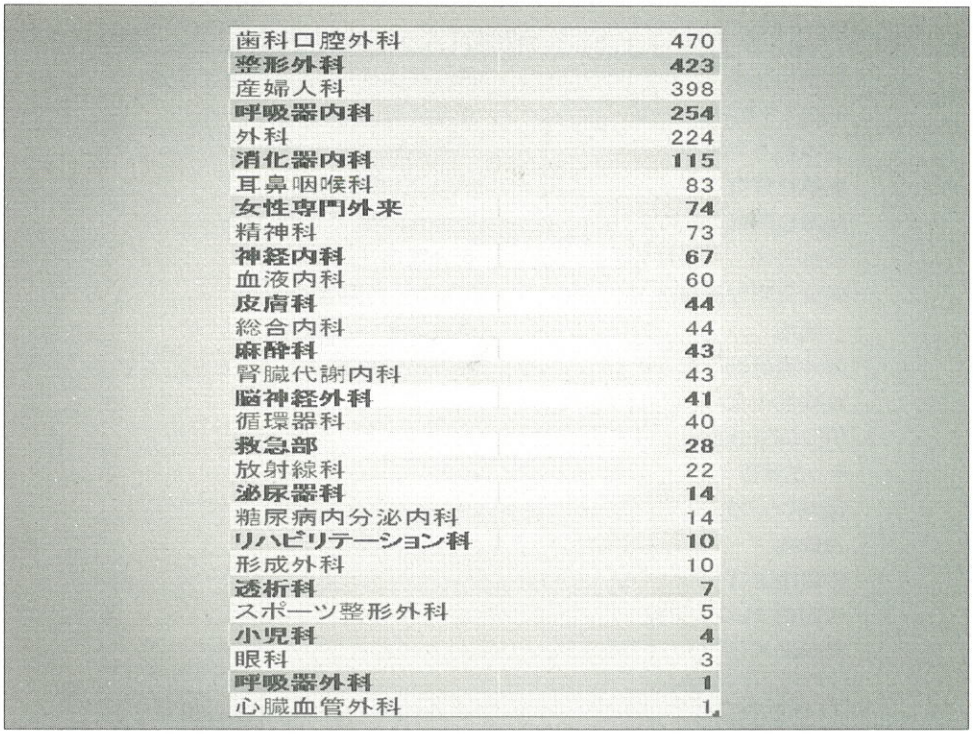
健康食品需要 狙う

共診·対診

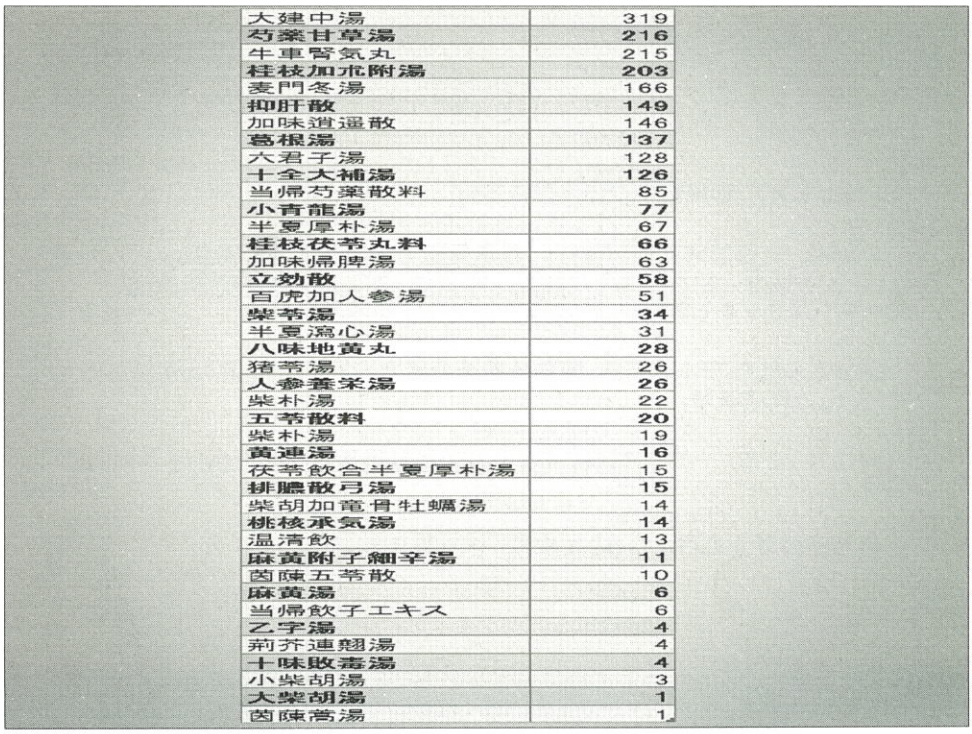
ヘルスケアプロバイダー側からの視点

- 制度化には程遠い 混合診療禁止ルール
- 併診/consultation-liaisonの場面にやや近いが以て非なるもの sectionalism
- 昨今の規制緩和、医療ツーリズム等の動向
- 殊に東西医学では疾病観や病態を超えた柔軟な対応
- 患者への還元

医療消費者(患者)のニーズ、ベストプラクティスを期待



歯科口腔外科	470
整形外科	**423**
産婦人科	398
呼吸器内科	**254**
外科	224
消化器内科	**115**
耳鼻咽喉科	83
女性専門外来	**74**
精神科	73
神経内科	**67**
血液内科	60
皮膚科	**44**
総合内科	44
麻酔科	**43**
腎臓代謝内科	43
脳神経外科	**41**
循環器科	40
救急部	**28**
放射線科	22
泌尿器科	**14**
糖尿病内分泌内科	14
リハビリテーション科	**10**
形成外科	10
透析科	**7**
スポーツ整形外科	5
小児科	**4**
眼科	3
呼吸器外科	**1**
心臓血管外科	1



大建中湯	319
芍薬甘草湯	**216**
牛車腎気丸	215
桂枝加朮附湯	**203**
麦門冬湯	166
抑肝散	**149**
加味逍遥散	146
葛根湯	**137**
六君子湯	128
十全大補湯	**126**
当帰芍薬散料	85
小青龍湯	**77**
半夏厚朴湯	67
桂枝茯苓丸料	**66**
加味帰脾湯	63
立効散	**58**
百虎加人参湯	51
柴苓湯	**34**
半夏瀉心湯	31
八味地黄丸	**28**
猪苓湯	26
人参養栄湯	**26**
柴朴湯	22
五苓散料	**20**
柴朴湯	19
黄連湯	**16**
茯苓飲合半夏厚朴湯	15
排膿散弓湯	**15**
柴胡加竜骨牡蠣湯	14
桃核承気湯	**14**
温清飲	13
麻黄附子細辛湯	**11**
茵蔯五苓散	10
麻黄湯	**6**
当帰飲子エキス	6
乙字湯	**4**
荊芥連翹湯	4
十味敗毒湯	**4**
小柴胡湯	3
大柴胡湯	**1**
茵蔯蒿湯	1

漢方薬単独で治療可能な疾患	向精神薬との併用が必要な疾患
血管性痴呆	統合失調症・他の精神病性障害
軽症うつ病エピソード	双極性障害(躁病エピソード)
全般性不安障害	中等症以上のうつ病エピソード
転換性障害	パニック障害
解離性障害	強迫性障害
社会恐怖	気分循環性障害
気分変調性障害	アルコール関連障害
心気症	摂食障害(中等症以上)
身体表現性障害	他の精神疾患
性機能不全	
摂食障害(軽症)	
チック障害	
原発性不眠症	
遺尿症	
疼痛性障害	
外傷後ストレス障害	
精神遅滞	

専門医を目指す人の精神医学 第2版 より一部改変

症例

・ 17歳 日本に正規留学中の中国人女性

・ X年6月 交通事故で頭部強打。 救急受診で頭部CT異常所見なし。
後に、記憶障害・発汗・耳鳴り・頭痛などを自覚。脳神経外科を受診し頭部MRI/MRI精査するも異常なく経過観察となり、診察依頼。

・ 面接から急性ストレス反応・頭部外傷後の高次脳機能障害疑いと暫定診断。
処方なしで経過観察。

・ X年8月 上海に一時帰国時、不定愁訴で当地の大学病院(TCM)を自発的に受診。

・ 担当医の紹介返書を持参して帰国、当科再来診。

(続)

“ 8月5日

『 脳外傷後出現 注意力不集中. 精神恍惚.
時有斗痛、耳鳴、眩暈、心悸発作、伴心煩易怒、
伴脱髪、虚熱盗汗、 CT、MRI無異常』

舌紅、苔薄、脉細数
郁証: 気陰両虚、気滞血瘀 ”

生地15 大百合15 当帰9 芍薬30 天麻9 黄連3 黄芩6
生黄芪9 川芎9 生牡蠣(先煎)30 制南星9 延胡索30
僵蚕9
紅花6 合歓皮30 遠志9 琥珀3 準小麦30 大棗9
緑梅花9
炙甘草9 郁李仁9 柏子仁9 丹参15 棗仁9 全蝎1
蜈蚣1 牛膝30
石菖蒲12

×7帖

8月24日

『眩暈、虚熱盗汗略有改善. 守方加減再迸7帖』

Rx: 守方＋ 首鳥15 ×7帖

・ 日本に戻ってきてからは紹介した近隣の中国人精神科開業医のもとで受診継続。

・ 症状軽快し、処方を半夏厚朴湯と抗不安薬のみで加療された。不定期に頭痛は出現も日常生活は安心して送れている。

参考:「医薬品等을 海外에서 購入하려는 분들께」(抄)
厚生労働省医薬食品局 監視指導・麻薬対策課

- 個人輸入される医薬品等は日本国内で薬事法を遵守して販売等されている医薬品に比べて次のような保健衛生上の危険性(リスク)がある。
  - 個人輸入される医薬品等の品質、有効性及び安全性については、我が国の薬事法に基づく確認がなされていません。
  - 品質等の確認が行われていない医薬品等は、期待する効果が得られなかったり、人体に有害な物質が含まれている場合があります。いわゆる健康食品、ダイエット食品等として販売されている製品についても、医薬品成分が含まれていて、健康被害を引き起こすことがあります。
- 医薬品の個人輸入を考えている方には、自分一人で判断せずに、家族の方などと話し合い、また、お住まいの地域の医師、薬剤師等の専門家に相談されることをお勧めします。

不定愁訴

- Syndromes of unexplained neuropsychiatric symptoms?

- "Medically unexplained" symptoms
- "functional", "psychogenic", "pseudo-this-or that" ・・・

Common Dx for Multiple Unexplained Somatic Symptoms

- Chronic fatigue syndrome
- Fibromyalgia
- PTSD
- Irritable bowel syndrome
- Multiple chemical sensitivities
- Sick building syndrome
- Systemic candidasis
- Toxic exposure
- Toxic mold

그 외 口訣

- PTSDに 桂枝加芍薬湯＋四物湯 (“神田橋”)
- 発達障害基盤にも桂枝加芍薬湯＋四物湯が有用との報告も。
- 自験例では行為障害(発達障害)の20歳男性で抑肝散＋抗精神病薬＋抗てんかん薬の長期内服

東洋医学的인 自律神経系病理를 理解하기 위해서는

- 情志

「七情五志」:喜・怒・哀・懼(クグ)・愛・悪・欲 ;孔子
喜・怒・憂・悲・好・憎・欲 ;老子、呉秀三『東洞全集』

「六情」:喜・怒・哀・楽・好・悪 ;荀子
喜・怒・哀・楽・愛・悪 ;東漢『白虎通』

「五志」:喜・怒・憂・恐・哀 :『呂氏春秋』

好む→ 喜・楽・愛
悪(にく)む→ 哀・怒・恐・懼・憎

• 『内経』에서의 「情志帰納」

七情 : 喜・怒・憂・思・悲・恐・驚

五志 : 喜・怒・憂・思・恐

情志活動は人間のすべての感情活動

情志의 両極性

悲⇔歓
哀⇔楽
悪⇔喜
恨⇔愛

「神有余則笑不休、神不足則悲」:『素問・調経論』
「肝気虚則恐惧、肝気盛則易怒」:『霊枢・本神』

↓

A day without dopamin is a day without pleasure.

情志의 活動은 內臟生理機能과 連関된다

「人有五臟生五志之気、従而産生喜、怒、思、憂、恐等情志変化」:『素問・天元紀大論』

五気＝五臟の気

五気から五志を生ずる

五臟の変化→外的刺激に敏感→情志活動の変化

情志⇔疾病転帰

- 転帰: 病変の転化、帰結、予測
- 伝化(伝移変化): 伝変、病変部位の転移により、病状が相応して変化

情志에 따른 病証의 機序

- **神志病証**：**精神、情志活動面の失調による次の8種類**

心悸
不眠（失眠・不寐）
厥証
鬱証
健忘
癲病
癎病
中風

火病

「腹が立つ」「立腹」（日本語）
→「火が出る」「火事になる」（韓国語）

「みぞおち」が「詰まる」「割れる」「こみ上げる」
「破れる」「むかむかする」という身体表現感覚

日常的感情表現 “怒り” の病理
文化結合症候群という理解

火病

1. **身体症状**: 動悸・息詰まり・頭痛・熱気・溜息・意欲喪失・衝動性によるトラブル・憂欝気分・不安・後悔
2. **強烈な誇張表現**: 「内臓がえぐられるような」「血管が破裂するような」→butterfly in my stomach
3. **全身を使った身振り**: 今にでも服を破りそうなそぶり、飛び上がりそうなしぐさ→ 大リーグチーム監督が審判に食って掛かる
4. **土着の言語表現**: 方言・訛り
5. **多弁**: 堰を切ったような愚痴 「言葉では言い尽くせない」「本を書けば何冊にもなる」
6. **衝動的・自虐的過激表現**: 「死にたい」「殺したい」「消えてしまいたい」
7. **不明確な表現**: 多彩な「不定愁訴」 心理問題なのか身体問題なのか要を得ない
8. **「怒」中心の感情表現**: 他文化圏の通念では理解されないこともありうる

火病과 類似한 症例

・S: 「昔の別れた頃を思い出すと、“瞬間湯沸かし器”のように“カーッと首から上が熱くなる”“顔が赤くなって湯気が出るのが分かる”」

・O: 中年女性。語気を荒げて呼吸が浅くなり次第に目が座る

・A: 火病類縁病態、身体表現性障害

・P: 支持的精神療法:怒りの処理支援

桃核承気湯＋抗不安薬

「漢方薬は効く、頭の熱さが治まるのが分かる」

→ 症状寛解後は不定期に服用継続。

火病의 病理

生活歴上の体験(ライフイベント)→鬱積された「怒り」の遷延

もしくは

突発的なライフイベント→過度の「怒り」

①**衝撃期**:止めどない憤怒、憎悪にとらわれる。悔しいのを押し殺して過ごす。身体症状は潜在。

②**葛藤期**:「火病」(身体症状)の顕在化。「活火山」状態。問題解決には力不足を実感。現実への直面化。怒りをぶつけても現実逃避も解決にならないことを自覚。

③**諦念期**:「怒り」の熱気を時間経過で冷却。現実受容の意識的努力。自然現象でもあるが「怒りの火種」は残存。些細な刺激で「怒り」は再燃。「休火山」状態。"胸苦しい"、"虚しい"、"詰まる"など。

④**超越期?**: 治療終結はいつか。何を持って治癒とするかは議論の分かれるところ。時間経過と人格の円熟だけで済まされない?

火病에 관해서 남은 課題

- アジア圏での類縁病態精査:文化を超えた病理の洗い出し
- 「みぞおち」がsymbolize: "心"の東洋医学的考察から更なる病態解明
- 「"火病"証」による方剤検証と薬理作用精査
- 東洋医学的精神療法:文化に根差したもの

移精変気

- 「古の病を治するは、ただ其の精を移し気を変じ祝由して已すべし」(『素問・移精変気論』)

- 現代の精神療法・心理療法ともいえる
- 実際にはプラシボ効果もあったのでは
- 患者の被暗示性による治療関係(rapport)も考慮
- 西洋の力動精神医学(精神分析)以前の心理療法、いわゆるmesmerismに近かったか

鍼

Die Akupunktur war das erste Mal 1683 nach Europa gekommen, konnte sich aber erst nicht durchsetzen und geriet wieder in Vergessenheit und wurde rest zur Zeit der Französischen Revolution (ab 1789) wiederentdeckt, geriet aber erneut in Vergessenheit.

Über Die Situation Der Akupunktur In Den Deutschen Ländern
Kitasato Arch. of Exp. Med. 1990 (63) 4

鍼의 自律神経系로의 作用

項目		交感神経	副交感神経
体　位	臥　位	↓	
	立位・座位	↑	
呼　吸	吸　気	↑	↓
	呼　気	↓	↑
鍼　刺　入	浅　刺	↓	↑
	深　刺	↑	↓
刺激	皮膚・皮下組織	↑α	↑
	筋・筋膜	↓β	

西条　2003

症例

・70歳　女性、膵頭部がんの末期。余命6か月で積極的な治療なく退院。

S:「眩暈」を主訴に受診。耳鼻科的器質疾患はなし。

O:　吐気なし、「眩暈」、頭痛あり。家族サポート得られるが患者・家族ともに心理的動揺認める。

A:　気鬱・気虚

P:　自宅療養できる状態ではなく、消化器科病棟に経過観察入院。精神科併診。

入院中に退院後の療養環境調整と、本人の希望・同意あり、週1回の鍼治療　3診　と抗不安薬服用で「眩暈」寛解。自宅退院となった。

足三里
手三里
内関
外関
風池
百会

以上に置鍼(浅刺)、抜鍼後は円皮鍼
病室は芳香浴の環境(ラベンダーの精油):家族の協力

情志⇔疾病転帰

- 転帰: 病変の転化、帰結、予測
- 伝化(伝移変化): 伝変、病変部位の転移により、病状が相応して変化

自律神経系와 免疫

- 鍼治療におけるアレルギー性疾患やがん患者の体質改善
- 鍼刺激によるT-cell 分裂活性調整作用の可能性、末梢血の細胞性免疫・液性免疫の活性促進
- 顆粒球の膜上にあるadrenaline receptorが交感神経刺激で活性化
- とリンパ球の膜上にあるacetylcholine receptorが副交感神経支配で活性化

정리

- ストレス関連疾患が自律神経系の不均衡と密接に関係しているため、調和をとるためには西洋医学のみならず、東洋医学的視点で治療することが重要である。
- 東西医学の連携を密にしてあらゆる叡智を用いて人々の健康を増進すべく臨床・研究・教育・予防を実践する。

略 歴

1969年	神奈川県にて出生
1992年	北里大学卒業 学士(保健衛生学)
2002年	帝京大学卒業 学士(医学)
2002～2005年	北里大学病院 · 北里大学東病院 勤務
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Acupuncture for vasomotor menopausal symptoms : A systematic review

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Abstract

Objective: To critically assess whether acupuncture therapy reduces vasomotor menopausal symptoms and to evaluate the adverse effects of acupuncture therapy on the basis of the results of randomized controlled trials(RCTs).

Design: Nineteen ,electronic databases, including English, Korean, Japanese and Chinese databases, were systematically searched for RCTs in which acupuncture was used to reduce vasomotor menopausal symptoms before July 2008, with no language restrictions. The methodological quality of the eligible studies was assessed using the categories provided by the Menstrual Disorders and Subfertility Review Group.

Results: Eleven studies, which included a total of 764 individual cases, were systematically reviewed. The methodological quality of the trials varied substantially. Six trials compared acupuncture treatment to sham or placebo acupuncture. Only one study using a non-penetrating placebo needle found a significant difference in the severity outcomes of hot flashes between groups(mean difference = 0.48, 95% confidence interval, CI = 0.05 to 0.91). Five studies reported a reduced frequency of hot flashes within groups; however, none found a significant difference between groups. An analysis of the outcomes of the trials that compared acupuncture with hormone therapy or oryzanol for reducing vasomotor symptoms showed that acupuncture was superior. Three RCTs reported minimal acupuncture-related adverse events.

Conclusions: There is no evidence from RCTs that acupuncture is an effective treatment in comparison to sham acupuncture for reducing menopausal hot flashes. Some studies have shown that acupuncture therapies are better than hormone therapy at reducing vasomotor symptoms. However, the number of RCTs compared with a non-penetrating placebo control needle, or hormone therapy was too small, and the methodological quality of some of the RCTs was poor. Further evaluation of the effects of acupuncture on vasomotor menopausal symptoms based on a well-controlled placebo trial is therefore warranted.

Keywords: acupuncture- menopause- vasomotor symptoms- hot flashes- systematic review

INTRODUCTION

Menopause is a significant event in most women's lives, as it marks the end of a woman's natural reproductive life. The perimenopausal and early postmenopausal periods are typically characterized by falling levels of endogenous estrogen, which can give rise to vasomotor symptoms that are severe and disruptive. Hot flashes and night sweats are the most common vasomotor menopausal symptoms[1]. Vasomotor symptoms are very common in the peri-menopausal and early post-menopausal phases of life, since up to 75% of women experience differing degrees of these symptoms[2]. Vasomotorsymptoms vary in frequency, duration, and severity, and are sometimes recurrent, usually lasting less than 5 min. The symptoms can be triggered by warm environments, hot food, drinks, and/or stress. Flashes and night sweats can also disrupt sleep patterns and alter daily activities, which can lead to fatigue and a decreased quality of life[3]. For some women, these episodes interfere with activities or sleep to such a degree that medical advice is needed[4].

Most therapies designed to combat menopausal vasomotor symptoms aim to supplement levels of circulating estrogen[5] with hormone replacement therapy(HRT). Current evidence supports HRT as the standard therapy for hot flashes. The adverse consequences of falling levels of estrogen can be alleviated by HRT, and a Cochrane review of HRT versus placebo showed that HRT is more effective, although a large placebo effect was also noted[6]. However, data from the Women's Health Initiative (WHI) and the Heart and Estrogen/progestin Replacement Study(HERS) link HRT to an increased risk of breast cancer, cardiovascular risk, thromboembolism, stroke, and dementia[7-11]. Despite its effectiveness for symptom reduction, there has been a marked and global decline in the prescription and use of HRT due to concerns over its long-term use.12-14 The potential health risks of HRT and the further uncertainty surrounding actual benefits to be gained from it have caused many women to seek alternative approaches to treat menopausal symptoms and the long-term effects of menopause[15,16,17]. The Women's Health Initiative has influenced many women to discontinue estrogen therapy[18], leading more health care professional sand their patients to consider alternatives to estrogen treatment[19]. Recent surveys into the use of complementary and alternative medicine(CAM) in a conventional menopause clinic showed that of 93% of women taking HRT, 45% were also regularly using CAM[20]. Another study reported that 21% of menopausal women used CAM alone, and 25% used a combination of CAM and HRT[21]. CAM has become popular for the treatment of menopausal symptoms, and many women continue to use it despite limited evidence in support of its efficacy and safety.

Among current CAM modalities, the effectiveness of acupuncture has been controversial. To date, there has not been a systematic review of acupuncture for vasomotor menopausal symptoms(only a Cochrane protocol for hot flashes[22]) without language and database restrictions. Thus, we conducted this systematic review to summarize and critically assess the evidence from RCTs showing that acupuncture is effective at reducing vasomotor menopausal symptoms.

METHODS

Data sources

The following sources were searched until July 2008: The Cochrane Library, including the Cochrane Central Register of Controlled Trials(CENTRAL, 2008), MEDLINE, EMBASE, Allied and Complementary Medicine Database(AMED), CINAHL, PsycInfo, Korean medical databases(which include the National Assembly Library, KoreaMed, Korean Studies Information Service System, DBpia and Korea Institute of Science Technology Information and Research Information Service System), the Japanese database(Japan Science and Technology Information Aggregator Electronic) and Chinese databases(which include the China Academic Journal, Century Journal Project, China Doctor/Master Dissertation Full Text DB and China Proceedings Conference Full Text DB). We also searched clinical trials databases, including Current Controlled Trials(http://www.controlled-trial.com), the National Centre for Complementary and Alternative Medicine(NCCAM) at the National Institutes of Health(NIH) (http://nccam.nih.gov/) and the Complementary and Alternative Medicine Specialist Library at the NHS National Library for Health(http://www.library.nhs.uk/cam/). An additional manual search was conducted in relevant journals, symposia and conference proceedings were conducted, and relevant trials were retrieved by cross-referencing all identified publications. The authors of the published studies were contacted personally, if necessary, to request additional data.

The keywords used to search RCTs were("acupuncture" OR "electroacupuncture" OR "acupressure" OR "meridian" OR "acupoint") AND("hot flashes" OR "hot flushes" OR "vasomotor symptom" OR "vasomotor disorder" OR "vasomotor reflex" OR "flushing" OR "vasomotor system" OR "night sweat" OR "nocturnal sweat") AND ("menopause" OR "perimenopause" OR "postmenopause" OR "climacterium" OR "early menopause"). Because the various databases in this study had their own subject headings, each database was searched independently.

Study selection

Types of studies: This review was restricted to RCTs that compared acupuncture or its variants with a control group that included no treatment, placebo treatment, pharmacological, or non-pharmacological treatment for the alleviation of vasomotor menopausal symptoms. No restriction was imposed on studies with respect to blinding or the type of design, such as parallel or crossover.

Types of participants: This study included women with spontaneous or surgical menopause(bilateral oophorectomy), in the perimenopausal or postmenopausal period, who were suffering from severe menopausal symptoms and sought treatment. This study excluded women with breast cancer or a history of breast cancer.

Types of intervention: Clinical trials evaluating all forms of acupuncture treatments, specifically classical acupuncture, electroacupuncture, laser acupuncture, acupressure, and acupoint were included.

Both traditional acupuncture(classical meridian points) and contemporary acupuncture(non-meridian or trigger points) were included if the points of stimulation were acupuncture-related(for example, hand, needle, laser, or electrical stimulation excluding moxibustion). Studies that assessed the combined effect of acupuncture with other therapies(for example, acupuncture and massage therapy or acupuncture and moxibustion therapy) were excluded because the purpose of our review was to assess the effects of acupuncture alone on vasomotor symptoms. Trials that compared different forms of acupuncture to each other were also excluded, and trials that compared different acupoints were also excluded. The types of control interventions considered in this review included no treatment(wait-listed or treatment as usual), placebo-controlled(sham acupuncture, minimal acupuncture, or non-invasively controlled), pharmacological treatment(standard medication to treat vasomotor symptoms) or non-pharmacological interventions(e.g., applied relaxation).

Types of outcome measures: The primary outcome was the frequency or severity(intensity and sustainability of relief over time) of vasomotor symptoms(self-reported or assessed with a validated instrument). Studies were included if they measured vasomotor symptoms on a subscale of a compendium score, for example the Greene Score, Kupperman Index, or any other general menopausal symptom score that derives numerical results from a combination of vasomotor menopausal symptoms. Studies were also included that measured individual symptoms, for example, the severity, frequency, or both, of hot flushes and night sweats(evaluated subjectively by participants, usually in daily diaries). Studies were excluded if they did not report vasomotor symptoms on a subscale of the Kupperman Index, Green Score, or any other general menopausal symptom score. Secondary outcomes included a sleep assessment, a quality of life score, and adverse events.

Data extraction and assessment of methodological quality

Each study identified by the search strategy was assessed according to the inclusion criteria by one of the reviewers. Where there was uncertainty regarding eligibility, a second reviewer assessed the study, and a decision was reached through discussion. The quality assessment of all studies was undertaken by two reviewers according to a detailed description of categories provided by the Menstrual Disorders and Subfertility Review Group[23]. Data extraction was conducted according to predefined criteria using standard data extraction forms. Further information was sought from authors when reports contained insufficient information for making a decision about eligibility. We disregarded the criteria provided by the Menstrual Disorders and Subfertility Review Group of 'were the treatment providers blind to assignment status' for acupuncture interventions and omitted these terms. However, data regarding whether a reviewer was blind to the outcome assessment was included as a quality criterion.

Quantitative data synthesis

The mean difference(MD) for changes in vasomotor symptoms scores or risk ratio(RR) for

improvement in vasomotor symptoms, with 95% confidence intervals(CI), respectively, were calculated using Review Manager(RevMan) software(version 5.8 for Windows; The Nordic Cochrane Centre, Copenhagen, Denmark).

For duplicated publications and companion papers of a primary study, the yield of information was maximized by simultaneously evaluating all available data. Whenever it was difficult to determine whether two papers represent duplicate publications of one study or two separate studies(for example, clinical trials done in the same hospital during the same period), the original publication(usually the oldest version) was given priority, while all others were excluded. For studies that reported sequential trials on the same participants, one trial was selected for inclusion.

Effect sizes were not pooled because of the small number of studies and the clinical heterogeneity of the trials. Because of the limited number of trials, assessment of publication bias, subgroup and sensitivity analysis to examine the pooled results could not be performed.

RESULTS

Study description

An initial search identified 68 potentially relevant articles, of which 11 studies met our inclusion criteria and were thus subjected to our systematic review. A total of 764 subjects were evaluated. Fifty-five articles were initially excluded because they did not meet our inclusion criteria. Among them, four studies compared different forms of acupuncture to each other[24-27], and one trial lacked appropriate data because the study analyzed the acupuncture group and superficial acupuncture groups together[28]. The remaining 13 studies were further evaluated by considering randomization and duplication; two articles[29,30] Figure 1. summarizes the search results based on the Quality of Reporting of Meta-analyses (QUOROM) flow diagram[31].

The key data are summarized in Table 1. The intervention varied considerably across trials. Various acupoints of acupuncture treatments were used in the included RCTs, including individualized(9%), standardized(64%), and semistandardized(27%) acupuncture. Semistandardized acupuncture is defined as a set formula of points, supplemented by some additional points individually chosen for each patient. The SP6 acupoint was commonly selected in all 10 trials of classic acupuncture treatment. The periods of treatment ranged from 1- 3 months. In general, acupuncture treatment detail, i.e., the chosen points, the number of points needled, needle sensation, needle retention time, treatment frequency, and treatment sessions, were generally consistent with the guidelines of textbooks[32,33] and reviews[34,35]. Five trials originated in China, three in the USA, two in Sweden and one in Korea. Three RCTs[36-38] employed shallowly penetrating sham acupuncture on non-acupoints, two RCTs39,40 used sham acupuncture on the same acupoints as those of the experimental group, and one RCT41employed non-penetrating acupuncture on non-acupoints. Four RCTs[38,42-44] employed conventional pharmaco-

logical drugs, and two RCTs[45,46] used a supplement, such as oryzanol. Gamma-oryzanol extracted from rice bran or embryo bud oil has been applied as the autonomic agent in various fields, including for patients complaining of climacteric disturbances[47]. Two of the trials adopted a three-armed parallel group design. A range of outcomes was considered. The most common were hot flash frequency, severity score, and vasomotor symptom scores based on the Kupperman Index.

Methodological quality

The methodological quality of the trials varied substantially(Table 2). Four studies ensured that allocations were concealed.[36, 38, 42, 44] Eight studies did not describe the method of allocation concealment. The study by Zhou et al.(2006), which showed significant effects compared with HT, did not report the withdrawals or dropouts of participants and did not mention any attempts of intent-to-treat(ITT) analysis. Four trials ensured that the outcome measurement was blinded[36, 38, 40, 42]. Studies that compared acupuncture with sham or placebo acupuncture were able to ensure single-blinding of the participants, and this was reported in six studies. In general, acupuncture treatments were generally consistent with treatments described in textbooks[32,33] and reviews.[34,35] Six studies reported the statistics and reasons for dropout and withdrawal. In one study, selection bias could not be excluded because of insufficient information about the sequence generation process and a significant difference between the number of subjects in the intervention group(n=54) and the number of subjects in the control group(n=15)[45]. The inclusion and exclusion criteria for entry were unclearly defined in one study45. The outcome measures for the duration of vasomotor symptoms were not clearly defined in one study[43]. In two trials, the accuracy of the outcome measures was not clearly acceptable because they only reported dichotomous data[45,46]. All studies used scales of hot flash frequency, severity scores, or vasomotor symptom scores based on the Kupperman Index. The timing of the outcome measures was appropriate.

Acupuncture versus placebo acupuncture (n=1)

With respect to the severity of hot flashes, only one study used a placebo nonpenetrating needle as a control treatment and found a significant difference(mean difference = 0.48, 95% CI = 0.05 to 0.91). However, there were no significant differences between the two groups in the frequency of hot flashes or quality of life[41].

Acupuncture versus sham acupuncture (n=5)

Five trials compared acupuncture treatment versus sham penetrating acupuncture. Among them, four studies[36-39] reported the severity of hot flashes. These studies reported a reduction in severity scores from baseline within both groups. When comparing the groups, there were no significant differences. Four trials[36,38-40] reported the frequency of hot flashes. All of these studies reported a reduction in the

frequency of hot flashes within both groups; however, no study found a significant difference in outcome between acupuncture and sham acupuncture. With respect to sleep, as measured according to the Women's Health Initiative Insomnia Rating Scale, one trial reported no significant difference between the groups[36]. With respect to quality of life, another study found no significant difference between the groups[36].

Acupuncture versus hormone therapy (n=3)

As for reduction in the severity of vasomotor symptoms based on the Kupperman Index, three trials compared acupuncture treatment with hormone therapy. Two trials reported a significant reduction in the severity of vasomotor symptoms(MD = 1.80, 95% CI = 1.31 to 2.29)[43], (MD = 1.40, 95% CI = 0.44 to 2.36)[44]. Meanwhile, Chen(2005) reported no significant difference between the groups(MD = 0.48, 95% CI = -0.83 to 1.79)[48]. In addition, after comparing acupuncture with oral estradiol with respect to hot flash severity scores and hot flash frequency, Wyon et al. reported no significant difference between the two groups, although there was a significant reduction in severity and frequency within the groups($p<0.001$)[38]. One study reported no significant difference between groups with regard to sleepless scores and quality of life; however, there was a reduction in sleepless scores within both groups[42].

Acupuncture versus oryzanol (n=2)

Two trials compared acupuncture treatment versus oryzanol[45,46]. They reported a significant difference in terms of improvement in symptoms for acupuncture treatment compared to oryzanol(RR = 1.83, 95% CI = 1.14 to 2.95)[25], (RR = 1.74, 95% CI = 1.23 to 2.47)[46]. Improvement in symptoms was measured as the number of women with a Kupperman index rate less than 0.8, compared with the total number of women in the treatment or control group in the two studies. The Kupperman index rate was defined as the Kupperman index score after treatment over the Kupperman index score at baseline. With respect to sleepless scores, both studies reported significant differences(RR = 3.58, 95% CI = 1.34 to 9.59)[25], (RR = 3.38, 95% CI = 1.66 to 6.90).46

Acupuncture versus wait-list control(n=1)

Avis et al. showed a significant reduction in both the hot flash frequency($p<0.05$) and hot flash severity index($p=0.02$) in the acupuncture treatment group compared to those of the non-treatment group[36].

Adverse events

Among six studies observing adverse events, three RCTs reported minimal adverse events, while three RCTs reported no serious adverse events. Kim et al[39]. reported no major adverse events; however, one subject in the control group complained of a temporary skin rash and pruritus, which disappeared within a day. Nir et al[41]. reported bleeding and discomfort, insomnia, pain, itchiness, twitching, irritability or restlessness, low energy, resentment, and gas in the active and placebo acupuncture groups. Chen[42] mentioned one case of swelling at the acupoint in the acupoint catgut embedding group, in addition to eight cases of nausea and sleepiness and seven cases of breast tenderness in the hormone therapy group.

DISCUSSION

In this comprehensive review, we specifically focused on RCTs that investigated the efficacy of acupuncture in the treatment of menopausal vasomotor symptoms. Our review followed the standards and guidelines of the Quality of Reporting of Meta-analyses(QUOROM) recommendations for the reporting of systematic reviews and meta-analyses with no restrictions on language or the number of literature databases.

The results of this review do not provide any evidence that acupuncture is effective at reducing vasomotor symptoms, such as the frequency and severity of hot flashes, when compared with sham acupuncture. These results need to be interpreted with an understanding of the implications and limitations of the controls. We observed a decline in vasomotor symptoms from baseline in both the acupuncture and sham acupuncture groups. Consequently, important aspects of the acupuncture and placebo control need to be considered to properly interpret this finding. First, although a superficial insertion method was used in the control group, this is not a straightforward placebo method because it elicits peripheral sensory stimulation. It does not seem possible to insert needles without any sensory stimulation[49,50]. In fact, even a very gentle form of placebo referred to as minimal or microacupuncture, in which the needle is superficially inserted and left in the skin for a very short time with no further stimulation, seems to exert an effect[51]. Second, although nonacupoints were used in the control group, they may not be inert. A current ongoing discussion in the acupuncture field is whether the acupuncture points should be referred to as acupuncture areas or zones, because needling in the areas around the traditional acupuncture points may be equally efficient[51]. Currently, some papers have suggested that sham acupuncture may not be inert[52,53]. Superficial needling was found to be superior to placebo diazepam[54]. It is necessary to re-examine trials of acupuncture in which the sham was assumed to be inert but was not inert[52]. Likewise, a re-interpretation of meta-analyses, including those within Cochrane reviews, should be considered. The recently developed non-penetrating placebo needles have been advocated as more appropriate controls[55-57]. Although five studies using superficial needling included in this review showed no significant difference between the two groups, one study using a

non-penetrating placebo needle reported significant differences in the severity of hot flashes. Finally, it appears that the effect induced from the superficial insertion was strong enough to induce a significant reduction in hot flashes in the responders, and therefore no difference was found between the two methods. It could not be determined whether the results were due to the effectiveness of non-inert sham needling or to a placebo effect. Therefore, further trials using non-penetrating placebo needles are needed.

Analysis of the outcomes of the trials that compared acupuncture with hormone therapy or oryzanol for reducing vasomotor symptoms showed that acupuncture was superior. These results are limited, however, because the number of trials was small and the studies had some methodological flaws; thus, they should be interpreted with caution. In addition, the studies by Liu and Yang(2007) and Zhou et al.(2006), which showed significant effects compared with HT, had the methodological flaws regarding an intent-to-treat(ITT) analysis of outcomes, blinding, and the reporting of withdrawals. A review found more exaggerated effect estimates from 'per-protocol' analyses compared with ITT analyses of the same trials[58], and Schulz observed that a lack of exclusions was associated with more beneficial effect sizes as well as a lower likelihood of adequate allocation concealment[59]. Nevertheless, the findings of our review and analyses are clinically important because the results support the possibility that acupuncture may help to reduce vasomotor symptoms. We would like to note that although acupuncture is used to treat a variety of important health problems, its clinical usefulness in treating vasomotor menopausal symptoms has not yet been fully evaluated. Further research should be conducted to determine how much more effective acupuncture is than an inert placebo control. Obviously, it is necessary to find a safe and effective alternative to hormone therapy for the relief of vasomotor menopausal symptoms, and investigators are encouraged to research acupuncture therapy as a potential treatment. Further evaluation of the effects of acupuncture interventions on vasomotor symptoms in high-quality RCTs is warranted on the basis of the results reported in this review.

Acupuncture therapy is a relatively safe treatment modality[52,60]. From the six RCTs that reported adverse events, none reported symptoms that were serious enough to warrant concern. This finding supports the contention that acupuncture is as safe for treating vasomotor symptoms as has been found for other conditions. Though acupuncture therapy is not risk-free, it is relatively safe when performed by a qualified practitioner[61]. Indeed, it should also be noted that, in a prospective survey with 34,407 acupuncture treatments, no serious adverse events were reported[60].

This systematic review has several limitations. The trials satisfying the inclusion criteria were clinically as well as methodologically heterogeneous with respect to different acupoints, the type of acupuncture variants, and the control groups used. Our study demonstrates that acupuncture is a viable option for treating menopausal symptoms. The types of acupuncture used in the trials included auricular acupuncture, body acupuncture, and acupoint catgut embedding. Different modes of acupuncture could not be explored through pre-specified subgroup analysis because of the small

number of trials. We could not glean any information about which types of acupuncture are appropriate for treating which particular symptoms, because the number of trials was too small, and the results were inconclusive. Future research should be conducted to determine which particular type of acupuncture should be offered for which particular condition. Many of the reviewed studies were of low quality and had methodological shortcomings, such as an inadequate level of blinding and an analysis of intent-to-treatment. Although blinding the therapist who applies acupuncture would be difficult, blinding patients and other care providers, as well as outcome assessors, should be attempted to minimize the performance and assessment bias of trials. We also emphasize that trials with acupuncture should be randomized, blinded(including assessor blinding), and well-controlled for placebo effects. They should also have adequately concealed allocations and utilize an appropriate level of power through sample size determination. Future research might focus on using placebo needling that does not penetrate the skin. One reported trial using placebo needles that did not penetrate the skin at sham acupoints showed a significant difference in the severity of hot flashes between both groups[41]. Because placebo effects were usually observed in short trials of 3 months, a longer follow-up period with serial measurements of outcomes is suggested to determine the unique effects of acupuncture versus placebo acupuncture. Since acupuncture in conjunction with herbal medicine has been used for balancing the 'yin' and 'yang' and coordinating 'qi' and 'blood' as a treatment for menopausal symptoms in Traditional Chinese medicine, it should be determined whether acupuncture is valuable if acupuncture alone is not effective at mitigating symptoms[42]. Further studies of combining acupuncture and herbal medicine to treat menopausal symptoms are also warranted.

CONCLUSIONS

There is no evidence from RCTs that acupuncture is an effective treatment for menopausal hot flashes when compared with sham acupuncture. While some studies have shown that acupuncture reduced vasomotor symptoms compared with hormone therapy, this result was not consistent throughout the literature. However, the number of RCTs compared with a non-penetrating placebo needle control or hormone therapy is too small, and some studies had flawed methodology, making it difficult for us to generate reliable conclusions about the efficacy of acupuncture. Further evaluation of the effects of acupuncture on vasomotor menopausal symptoms in a well-controlled placebo trial is warranted on the basis of the results reported in this review.

Tabel 1. Characteristics of RCTs of acupuncture for vasomotor menopausal symptoms

First Author (pub. year) location	*Subjects' mean age[range years] Inclusion criteria*	*No. of Subjects*	*Intervention type, treatment frequency (treatment period); Treated acupoints*	*Type of control group*	*Main Outcomes / Result*	*Adverse Events reported (n)*
Avis et al. (2008)[36] USA	51.3y [42–55y]≥4 HF per d.	56	AT, 2 per wk (8wks); CV4, KI3, SP6, BL23, H6, KI7 and adjunctive points	(A) Sham acupuncture (needling shallowly on nonacupoints) (B) Usual care	Reduced HF frequency (p=.01) within all groups from baseline; NS differences between groups in HF frequency and HF index scores (p=.15, p=.07); greater reduction in HF frequency(40%) and HF index scores(40–50%) with two acupuncture groups than usual care group(p<.05, p=.02); NS difference in sleep, health–related quality of life.	NR
Kim et al. (2007)[39] Korea	52.73y [40–60y]≥14 moderate HF per wk	52	AT, 2 per wk (8wks); PC6, HT8, HT7, LI4, SP6, ST36, CV4	(A) Superficial acupuncture (minimal needling on the same acupoints)	NS difference in HF severity VAS scores, HF frequency, HR duration and sweating severity VAS scores between groups. Reduced HF severity VAS scores, sweating severity VAS scores within both groups.	One complain t of a temporary skin rash and pruritus in the control group, which disappeared within a day.
Nir et al. (2007)[41] USA	56.92y [45–65y]≥7 HF per d	29	AT, 9 se. (7wks); Adjunctive points	Placebo needle (No penetration of skin on nonacupoints)	Reduced HF severity with AT vs. placebo (25% vs. 4%, p=.042); NS difference in HF frequency between groups; reduced HF frequency from baseline within both groups (p<.001); NS difference in menopausal specific quality of life from baseline.	Active group: Bleeding(8), discomfort(7), insomnia(2), pain(1), itchiness(1), twitching(1)
Vincent et al. (2007)[37] USA	52y [45–59y]≥ 5 HF per d	103	AT, 2 per wk (5wks); SP4, SP6, HE7, LI11, LR2, KI6, LU7, PC6, GB34, LR3, CV4, GB20	Sham AT (needling on nonacupoints)	Reduced HF scores from baseline within both groups (40% vs 27%); NS difference in HF scores between groups	None
Wyon et al. (1995)[40] Sweden	54y [47–62y] Vasomotor symptoms	24	EA, 10 se. (8wks); BL15, BL 23, BL32, GV20, HT7, PC6, LR3, SP6, SP9	Superficial needle insertion (minimal needling on the same acupoints)	Reduced HF frequency from baseline(>50%) within both groups(p=.013, p=.005); NS difference in any measures between groups; NS changes in sleep dysfunction scale, Psycho–logical General Well–Being index	NR
Wyon et al. (2004)[38] Sweden	54.5y [48–63y] Vasomotor symptoms	45	EA, 14 se. (12wks); BL15, BL23, BL32, HT7, SP6, SP9, LR3, PC6, GV20	(A) Superficial needle insertion (minimal needling on nonacupoints) (B) Oral estradiol 2mg daily	Reduced HF frequency and severity from baseline within all groups(p<.001, p<.001); NS difference in HF frequency and severity between groups	No serious adverse events
Chen (2006)[42] China	53.93y [50–60y] Menopausal symptoms Diagnosis	65	ACE, 1 per 2 wks (3mo); CV4, SP6, BL23 and adjunctive points	Fufuchun 2capsules per d (Hormone Replacement Therapy)	Reduced vasomotor symptom scores and sleepless scores with KI within groups (p<.001, p<.001); NS difference between groups.	ACE group; swelling (1), Control group; nausea and sleeplessness (8), breast tenderness (7)

First Author (pub. year) location	Subjects' mean age[range years] Inclusion criteria	No. of Subjects	Intervention type, treatment frequency (treatment period); Treated acupoints	Type of control group	Main Outcomes / Result	Adverse Events reported (n)
Liu and Yang (2007)[43] China	46.16y [45–55y] Menopausal symptoms Diagnosis	166	ACE, 1 per wk (3mo); GV4, CV4, BL23, BL15, BL18, SP6	Ethinyl estradiol 3-cycloentyl Ether 25mg twice per d and Oryzanol 25mg 3 times per d	Reduced vasomotor symptom scores with KI between the groups ($p<.05$)	None
Zhou et al. (2006)[44] China	49.9y [45–55y] HF, Menopausal symptoms Diagnosis.	90	EA, 3 per wk (3mo); SP6	Nylestriol 2mg twice per mo	Reduced vasomotor symptom scores with KI within all groups ($p<.01$), between both groups ($p<.05$)	NR
Sun et al. (2003)[45] China	49.56y [41–59y] Menopausal symptoms Diagnosis	69	AAP, placed (1mo); Endocrine, Kidney, Subcortex, Internal genitals, Shenmen, Sympathetic, Apex and adjunctive points	Oryzanol 10mg 3 times per d	Reduced vasomotor symptom scores and sleepless scores with KI between groups ($p<.01$)	NR
Zhang (2006)[46] China	50.2y [NR] Menopausal symptoms Diagnosis	65	AT, 6 per wk (4wks); BL23, ST36, SP6, PC6, HT7, LR3, GV20, CV17 and adjunctive points	Oryzanol 20mg 3 times per d	Reduced vasomotor symptom scores and sleepless scores with KI between the groups ($p<.01$)	NR

Abbreviation: se., sessions; NR, not reported; NS, not significant; AT, acupuncture; EA; electroacupuncture; AAP, auricular acupuncture pressure; AAP, Auricular acupressure; ACE, Acupoint catgut embedding; HF, Hot flash; KI, Kupperman Index

Table 2. Quality of RCTs of acupuncture treatment of vasomotor menopausal symptoms¶

First Author (pub. year)	A*	B*	C*	D*	E*	F*	G**	H*	I*	J*	K*
Avis et al.(2008)	+	+	+	+	+	?	+	+	+	+	+
Kim et al.(2007)	?	–	?	+	+	+	+	+	–	–	+
Nir et al.(2007)	?	+	?	+	+	+	+	+	+	+	+
Vincent et al.(2007)	?	+	?	+	+	+	+	+	+	+	+
Wyon et al.(1995)	?	–	+	+	+	+	+	+	+	+	+
Wyon et al.(2004)	+	–	+	+	+	+	+	+	+	+	+
Chen(2006)	+	+	+	–	+	+	+	+	+	+	+
Liu and Yang(2007)	?	–	?	–	+	?	+	+	?	+	+
Zhou et al.(2006)	+	?	?	–	+	?	+	+	+	+	+
Sun et al.(2003)	?	–	?	–	+	?	?	?	+	?	+
Zhang(2006)	?	–	–	–	+	?	+	+	+	?	+

¶ A) Was the assigned treatment adequately concealed prior to allocation? B) Were the outcomes of patients who withdrew or were excluded after allocation described and included in an "intention to treat" analysis? C) Were the outcome assessors blind to assignment status? D) Were the subjects blind to assignment status following allocation? E) Were the care programs, other than the trial options, identical? F) Does the number of, and reasons for, withdrawals give cause for concern? G) Were there any other features, specific to this study that posed a risk of bias? H) Were the inclusion and exclusion criteria for entry clearly defined? I) Were the outcome measures that were used clearly defined? J) Were the accuracy, precision, and observer variation of the outcome measures adequate? K) Was the timing of the outcome measures appropriate?

*Key: + indicates 'clearly yes'; – indicates 'clearly no'; ? indicates 'not sure'.

**Key: + indicates "no, there are not any other features that pose a risk."; –, "yes, there are"; ? , "not sure".

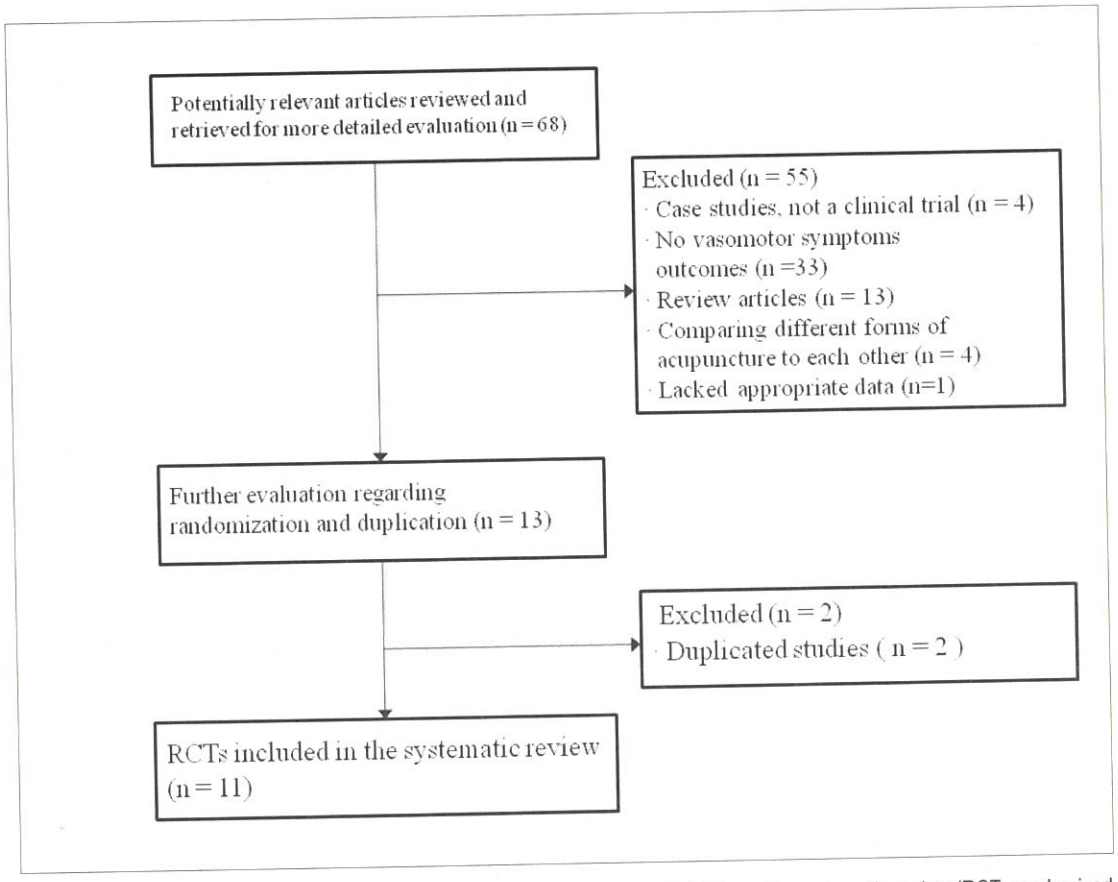

Fig. 1. Flow diagram showing the number of studies included in and excluded from the systematic review.(RCT, randomized controlled trial.)

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Part 1.

Evaluation of Autonomic Nervous Function in Patients with Functional Dyspepsia using Ryodoraku, HRV, EGG, and Bowel Sound Parameters

김소연

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Abstract

Objectives : The aim of this study was to investigate the characteristics of Ryodoraku and association of Ryodoraku with gastric dysmotility in functional dyspepsia(FD).

Methods : Subjects were 154 patients with FD and 18 patients with asthma. We calculated the average Ryodoraku score(RS, μA.) and each variation from physiologic range of 12 Ryodoraku points, and investigated the incidence when left and right points were simultaneously below(bilateral deficiency) or above(bilateral excess) physiologic range. Postprandial regularity of normal slow waves, power ratio, and postprandial % of bowel sound were obtained by electrogastrography and enterotachography, and were used as gastric dysmotility index.

Results : 1. Bilateral excess of H4, H5, F1, and F4 and bilateral deficiency of H4, H5, and H6 were characteristic in FD compared with asthma patients. 2. Incidence of gastric dysmotility in bilateral deficiency of H4, H5, and H6 was 100%, and was higher than in total FD patients(88.3%). 3. There was a positive correlation between the variation of H6 and % postprandial bowel sound. 4. Deficient tendency of H4, H5, and H6 was more evident when RS was above 40μA. in FD.

Conclusions : These findings suggest that gastric dysmotility in FD can be diagnosed when a pattern of H4, H5, H6 bilateral deficiency and F1, F4 bilateral excess is shown at the same time. We think this phenomenon is related to low activity of the vagus nerve rather than meridian pathway with result based on positive correlation between variation of H6 and postprandial % of bowel sound.

Part 2.

Correlation between HRV and Bowel Sound Parameters in the Evaluation of Gastrointestinal Parasympathetic Nerve Activity from Patients with Functional Dyspepsia.

So-yeon Kim, Sang-hyub Yoon

3rd Dept. of Internal Medicine, Oriental Medicine, Kyung-hee University

Abstract

Objectives : The aim of this study was to investigate the evaluation of gastrointestinal parasympathetic nerve activity by comparing between HRV and bowel sound parameters in patients with functional dyspepsia.

Methods : 62 patients (male 22, female 40) were enrolled. HRV was measured in all patients, and TP (total power), LF (low frequency density: 0.04~0.15Hz), HF (high frequency density: 0.15~0.4Hz), and LF/HF ratio were analyzed. HF band is a reflection of parasympathetic activity, and the LF-to-HF ratio is considered a marker of sympathovagal balance. Bowel sounds were recorded at the day after, and postprandial %BS was used to indicate the gastric vagal activity after eating. HRV and bowel sound parameters were compared, and correlation between them was analyzed.

Results : There was no difference in LF/HF ratio between patient group and healthy group of other report. According to values of %BS, each patient was classified into a normal (>6 %BS) or hypoactivity (<6 %BS) of gastric vagus nerve group. HF component of the hypoactivity group was not significantly higher than that of the normal group. There was no correlation between HRV and bowel sound parameters.

Conclusions : Because no correlation was found between HRV and bowel sound parameters in patients with functional dyspepsia, we concluded that it is not proper.

Contents

1. Autonomic Nervous Function & Functional Dyspepsia
2. Evaluating Methods of Autonomic Nervous Function
3. EGG(Electro Gastrography)
4. Bowel Sounds
5. Ryodoraku
6. HRV(Heart Rate Variability)
7. Conclusion

1. Functional Dyspepsia & Autonomic Nervous Function

1. Functional Dyspepsia
   1. Functional syndrome, which is diagnosed in the absence of underlying organic disease that readily explains the symptoms
   2. Defined by Rome III to comprise the presence of one or more of the following symptoms
      1. post-prandial fullness
      2. early satiety
      3. epigastric burning or epigastric pain.

1. Functional Dyspepsia & Autonomic Nervous Function

2. Autonomic nervous function in patients with functional dyspepsia

1. Vagus nerve

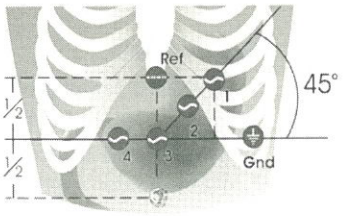
2. Disturbed state of autonomic nervous function

2. Evaluating Methods of Autonomic Nervous Function

1. General function
   1. Blood pressure / Pulse : Head up/Tilting, Valsalva, Oral Glucose Tolerance Test
   2. ECG : HRV, RR, QT interval
   3. Skin Test : Sweat, Tempearture, Blood Flow, Electric resistance
   4. Pharmacological Test : Noradrenaline, Atropine injection

2. Gastrointestinal function
   1. Swallowing Function Test
   2. Esophageal Function Test
   3. Gastric Emptying Test
   4. Electrogastrography
   5. Gastric Juice Test
   6. Exocrine Pancreatic Function Test
   7. Test related with Defecation

3. EGG



1. EGG
   1. Evaluate myoelectrical activity Noninvasively with use of surface electrodes
   2. Recording of the electrical signals are typically made before and after a meal

2. Parameters
   1. Frequency
      1. Dominant Frequency
      2. % of Normal, Bradygastria, Tachygastria, Arrhythmia
   2. Power
      1. Dominant Power
      2. Power Ratio : postprandial/fasting

4. Bowel Sounds

1. Bowel Sounds
   1. Analogue signals of electric stethoscope attached to right lower quadrant abdomen is transferred to digital recorder, and recording data were delivered to computer via converter.
   2. Parameters is calculated by bowel sound analysis software.

2. Parameters
   1. Frequency
      1. Dominant Frequency
      2. Dominant Frequency Ratio : postprandial/fasting
   2. % of Bowel Sounds

5. Ryodoraku

1. Ryodoraku
   1. Yoshino Nakatani who studied acupuncture electrophysically and discovered that most of the meridian points of the traditional acupuncture theory corresponded to points which have lower electrical resistance than the normal body surface.
   2. Nakatani named these points "Ryodoten" which means hyperelectroconductive points and the systematic range of Ryodoten he called "Ryodoraku"

2. What is Ryodoraku related with Function Dyspepsia?
   1. Ryodoraku parameters for Diagnosing gastric dysmotility
   2. Sympathetic nerve function to electrical response of Ryodoraku point and disarrangement of its meridian location on the anatomical viscera

5. Ryodoraku

Ryodoraku Parameters for Diagnosing Gastric Dysmotility

- Referenced by Korean J. Orient. Int. Med. 2008;29(2):401-12

Study of Ryodoraku Parameters for Diagnosing Gastric Dysmotility in Functional Dyspepsia.

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**Division of Allergy, Immune & Respiratory System, College of Oriental Medicine, Kyung-Hee University

ABSTRACT

Objectives : The aim of this study was to investigate the characteristics of Ryodoraku and association of Ryodoraku with gastric dysmotility in functional dyspepsia(FD).

Methods : Subjects were 154 patients with FD and 18 patients with asthma. We calculated the average Ryodoraku score(RS, μA) and each variation from physiologic range of 12 Ryodoraku points, and investigated the incidence when left and right points were simultaneously below(bilateral deficiency) or above(bilateral excess) physiologic range. Postprandial regularity of normal slow waves, power ratio, and postprandial % of bowel sound were obtained by electrogastrography and enterotachography, and were used as gastric dysmotility index.

Results : 1. Bilateral excess of H4, H5, F1, and F4 and bilateral deficiency of H4, H5, and H6 were characteristic in FD compared with asthma patients. 2. Incidence of gastric dysmotility in bilateral deficiency of H4, H5, and H6 was 100%, and was higher than in total FD patients(88.3%). 3. There was a positive correlation between the variation of H6 and % postprandial bowel sound. 4. Deficient tendency of H4, H5, and H6 was more evident when RS was above 40μA in FD.

Conclusions : These findings suggest that gastric dysmotility in FD can be diagnosed when a pattern of H4, H5, H6 bilateral deficiency and F1, F4 bilateral excess is shown at the same time. We think this phenomenon is related to low activity of the vagus nerve rather than meridian pathway with result based on positive correlation between variation of H6 and postprandial % of bowel sound.

Key words : Functional dyspepsia, Ryodoraku, Electrogastrography, Bowel sounds, Autonomic nerve.

5. Ryodoraku

Ryodoraku Parameters for Diagnosing Gastric Dysmotility

1. Purpose

    1. Investigate the characterisitic of Ryodoraku and association of Ryodoraku with gastric dysmotility in functional dyspepsia(FD).
    2. Find typical Ryodoraku index to diagnose gastric dysmotility in FD

5. Ryodoraku

Ryodoraku Parameters for Diagnosing Gastric Dysmotility

- Yoshio Nakatani & Kumio Yamashita
  " Ryodoraku Acupuncture" p.68

It may be almost impossible to diagnose some disease by the Ryodoraku chart. However, we can estimate the patient' s complaints from certain combinations of abnormal Ryodoraku.

For instance, gastroptosis is indicated in the case of excitation of both F1(SP) and F2(LV) and constipation may be shown in the case of the excitation of H3(HT) and the inhibition of H6(LI).

By the combination of two meridian abnormalities, we can estimate more easily the symptoms or complaints of the patient than by the single meridian abnormality.

5. Ryodoraku

Ryodoraku Parameters for Diagnosing Gastric Dysmotility

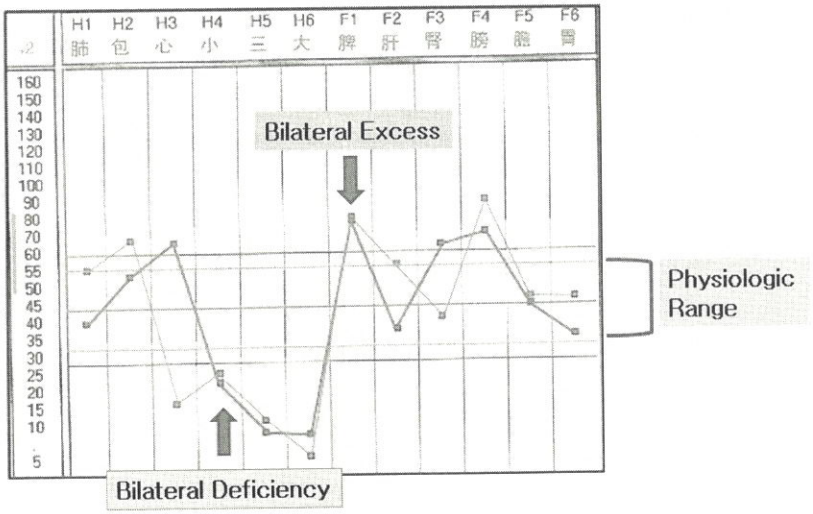
2. Method

1. Compared 154 FD patients and 18 anthma patients.
2. Calculated the average Ryodoraku score and each variation from physiologic range of 12 Ryodoraku points
3. Investigated the incidence when left and right points simultaneously below(bilateral deficiency) or above(bilateral excess) physiologic range.
4. Postprandial regularity of normal slow waves, power ratio(EGG), and postprandial % of bowel sound were obtained

5. Ryodoraku

Ryodoraku Parameters for Diagnosing Gastric Dysmotility

2. Method



5. Ryodoraku

Ryodoraku Parameters for Diagnosing Gastric Dysmotility

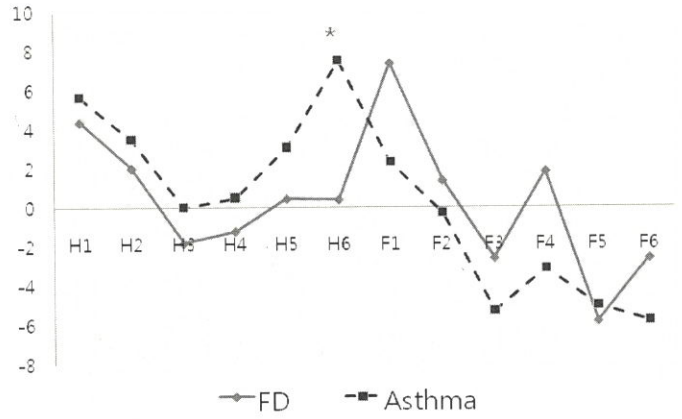


Figure 1. Variation from Physiologic Range of 12 Ryodoraku Points in Functional Dyspepsia(FD) and Asthma Groups.
*. $p<0.05$; by Student t-test

5. Ryodoraku

Ryodoraku Parameters for Diagnosing Gastric Dysmotility

- Yoshio Nakatani & Kumio Yamashita
  " Ryodoraku Acupuncture" p.64

When there are rather marked differences between the right and the left sides on the Ryodoraku chart, they may not be caused by visceral diseases but by such superficial autonomic nerve disturbances as neuralgia or numbness of the same side.

.....

The illness of one part of an organ which has parts located on both the left and the right sides of the body seldom causes a one-side disturbance of the Ryodoraku.

.....

There is no meaning in taking the average value of both sides of the Ryodoraku chart.

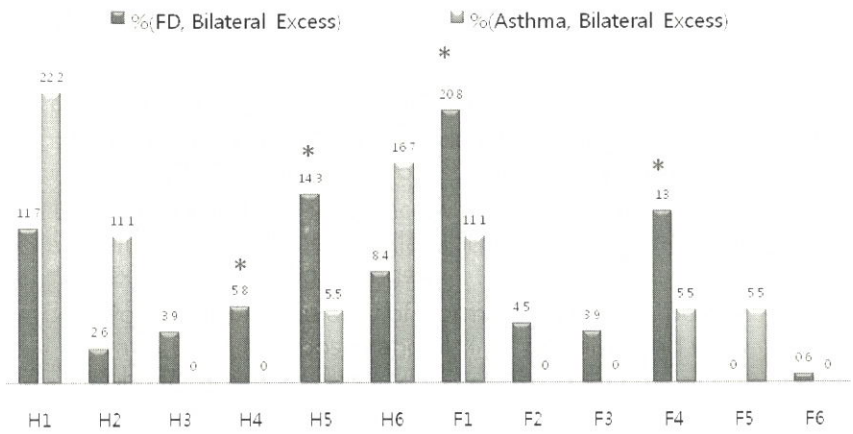


Figure 2. Incidence of Bilateral Excess(BE) of 12 Ryodoraku Points in Functional Dyspepsia(FD) and Asthma Groups.

*. Indicates the incidence is 5% higher in FD group than in Asthma group.

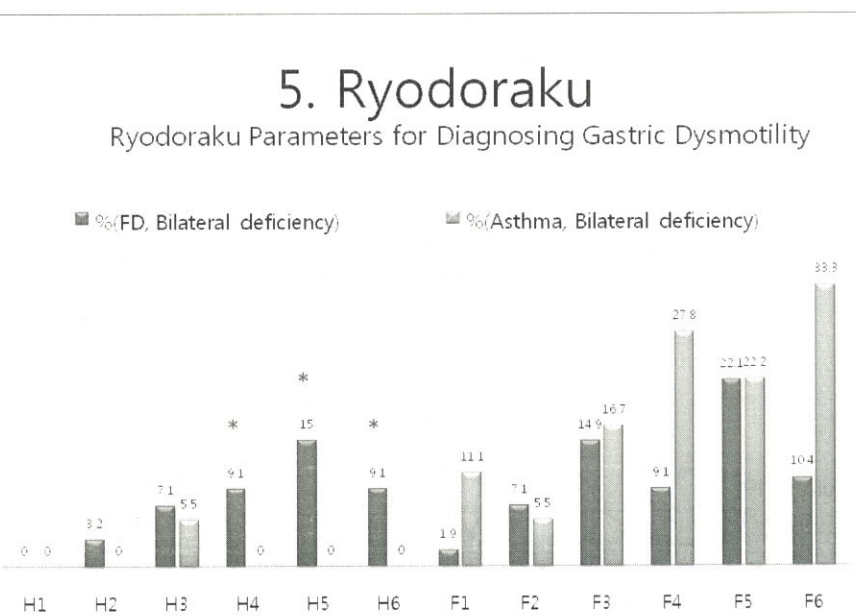
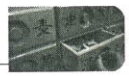


Figure 3. Incidence of Bilateral Deficiency(BD) of 12 Ryodoraku Points in Functional Dyspepsia(FD) and Asthma Groups.

*. Indicates the incidence is 5% higher in FD group than in Asthma group.



5. Ryodoraku

Ryodoraku Parameters for Diagnosing Gastric Dysmotility

Index for gastric-dysmotility	Total FD	Number of patients (%) Bilateral excess H4	H5	F1	F4	Bilateral deficiency H4	H5	H6
P-Reg<80	89(57.8)	5(55.5)	11(50.0)	22(68.7)	12(60.0)	9(64.3)	18(78.3)	9(64.3)
PR <1.2	124(80.5)	6(66.7)	17(77.3)	28(87.5)	17(85.0)	10(71.4)	21(91.3)	12(85.7)
P-% of BS<6	57(37.0)	4(44.4)	6(27.3)	12(37.5)	6(30.0)	10(71.4)	13(56.5)	8(57.1)
Total incidence	136(88.3)	7(77.8)	20(90.9)	29(90.6)	18(90.0)	**14(100)**	**23(100)**	**14(100)**

Table3. Gastric Dysmotility Incidence in Characteristic Ryodoraku Points in Functional Dyspepsia(FD)

- EGG(Electrogastrography)
  P-Reg : Postprandial regularity of normal slow waves
  PR : Power ratio
- Bowel Sound
  P-% of BS : Postprandial % of bowel sound

5. Ryodoraku

Ryodoraku Parameters for Diagnosing Gastric Dysmotility

	Bilateral deficiency H4	H5	H6
P-Reg	-0.240(0.409)	0.309(0.151)	-0.342(0.231)
PR	0.407(0.149)	0.019(0.932)	-0.540*(0.046†)
P-% of BS	-0.442(0.114)	0.195(0.371)	0.595*(0.025†)

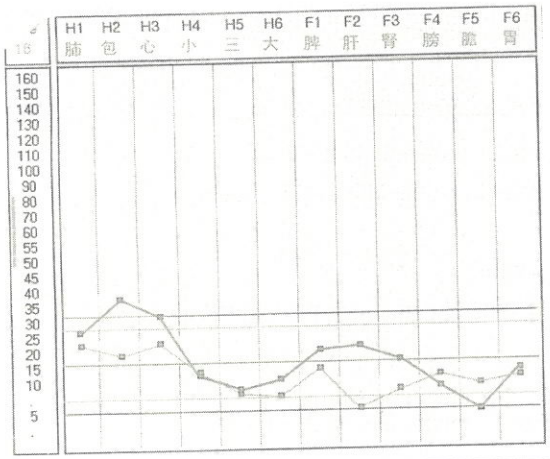
Table4. Correlation between Gastric Motility Index and Variation from Physiologic Range(Spearman test).

- Degree of H6's bilateral deficiency and P-% of Bowel Sound
  - P-% of Bowel Sound is influenced by vagal nerve function
  - H6's bilateral deficiency may be correlated with vagal nerve function.

5. Ryodoraku

Ryodoraku Parameters for Diagnosing Gastric Dysmotility

- Effect of skin sympathetic tone
  - Ryodoraku Score(average current of all Ryodoraku point score)



5. Ryodoraku

Ryodoraku Parameters for Diagnosing Gastric Dysmotility

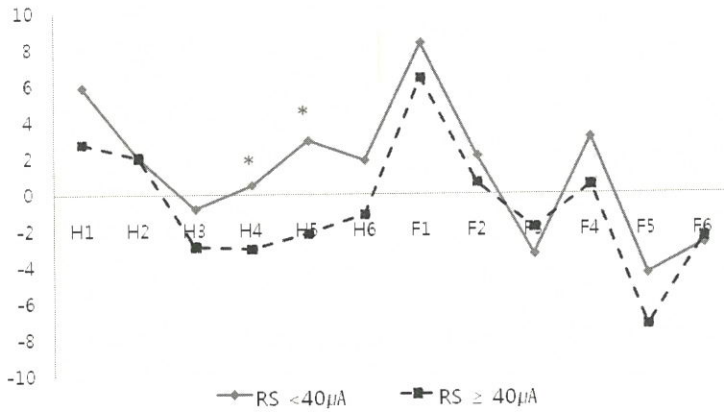
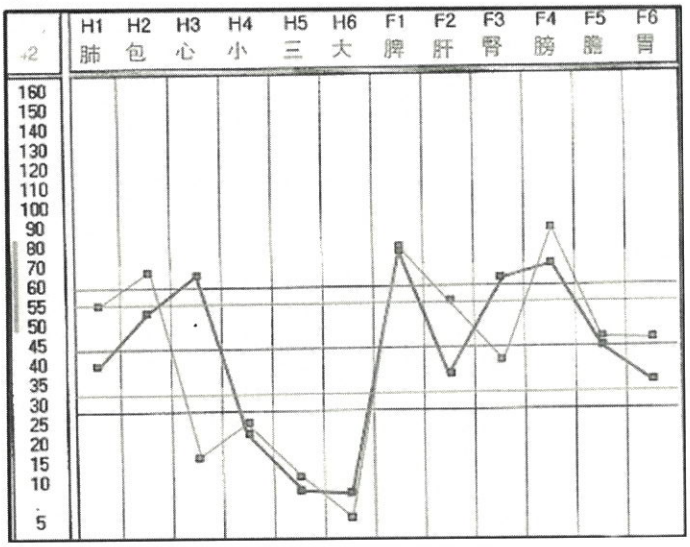


Fig 4. Variation from Physiologic Range of 12 Ryodoraku Points in Functional Dyspepsia(FD) Patients Classified by Level of Ryodoraku Score 40μA.
*. $p<0.05$: by Student t-test

Typical Recording of Ryodoraku



5. Ryodoraku

Sympathetic nerve function to electrical response of Ryodoraku point and disarrangement of its meridian location on the anatomical viscera

- Referenced by Korean J. Orent. Int. Med. 2011:32(2);259-277

Sympathetic Nerve Function to Electrical Response of *Ryodoraku* Point and Disarrangement of its Meridian Location on the Anatomical Viscera Exclude the Association between *Ryodoraku* Theory and Meridian Principle

Sang-hyub Yoon

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ABSTRACT

Objectives : The purpose of this study was to investigate two subjects: the diagnostic value of bilateral lowering of electrical activity at point H4.5.6 of *Ryodoraku* and the mechanism for *Ryodoraku* phenomena.

Methods : Electrical activities of *Ryodoraku* test and electrogastrography recorded simultaneously and monitored continuously from 16 cases of functional dyspeptic patients were collected and their variations were grouped by the topics of discussion which were peculiarity, stability, lagging, alterability, and anomaly. *Ryodoraku* recordings obtained from 6 patients with different gastrointestinal diseases and 1 normal healthy person were used as control. The results are discussed with Nakatani's suggestion, theory of sympathetic nerve and Meridian Principle, respectively. Finely, coincidence of stomach arrangement between anatomy and meridian system in *Ryodoraku* was also evaluated.

Results : Time-course variation showed a regular relationship between the typical pattern of *Ryodoraku* at point H 4.5.6 and gastric myoelectrical activity. However, an irregular relationship and atypical pattern of *Ryodoraku* occasionally appeared. A literature search suggested that electrical response at the *Ryodoraku* point H4.5.6 may be dependent on an afferent sympathetic spinal reflex transmitted from the stomach. However, there was no evidence for making clear whether bilateral lowering of electrical activity at this point was induced by hypofunction of local sympathetic nerve in the skin itself or of signals transmitted from the gastric sympathetic nerve or not. The coincidence of 19% could not provide a visceral arrangement of the stomach between anatomy and meridian systems.

Conclusions : Bilateral lowering of electrical activity at *Ryodoraku* point H4.5.6 has value as a diagnostic index for gastric dysmotility of functional dyspepsia. This phenomenon is associated with spinal reflex transmitted from the afferent sympathetic nerve in the stomach but not that of meridian function.

Key words : sympathetic nerve, *Ryodoraku*, meridian, functional dyspepsia

5. Ryodoraku

Sympathetic nerve function to electrical response of Ryodoraku point and disarrangement of its meridian location on the anatomical viscera

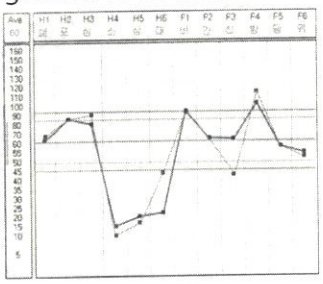
1. Purpose
   1. The diagnostic value of bilateral lowering of electrial activity at point H4, 5, 6.
   2. The mechanism for this Ryodoraku phenomena.

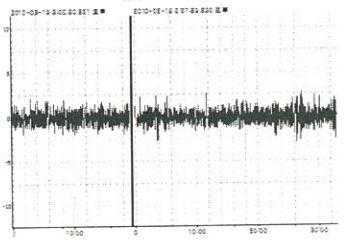
2. Method
   1. Analysis variation of Rydoraku phenomena
      1. Regular relationship : peculiarity, stability, lagging
      2. Irregularity : alterability, anomaly
   2. Coincidence of Anatomical stomach and meridian location of stomach

5. Ryodoraku

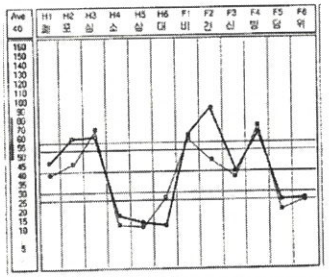
Sympathetic nerve function to electrical response of Ryodoraku point and disarrangement of its meridian location on the anatomical viscera

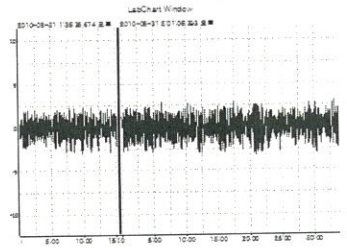
Case 6-0





Case 6-1

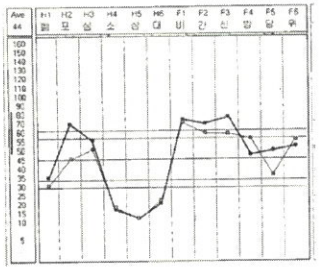


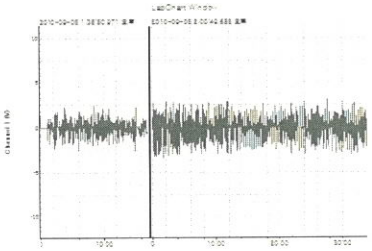


5. Ryodoraku

Sympathetic nerve function to electrical response of Ryodoraku point and disarrangement of its meridian location on the anatomical viscera

Case 6-2





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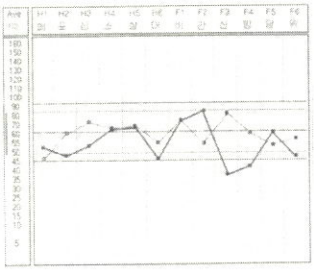
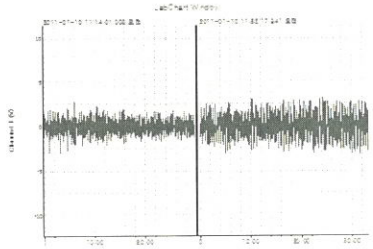




5. Ryodoraku

Sympathetic nerve function to electrical response of Ryodoraku point and disarrangement of its meridian location on the anatomical viscera

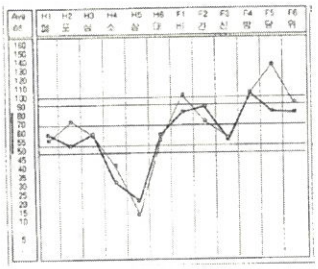
- Time-course variation showed a regular relationship between the typical pattern of Ryodoraku at point H4, 5, 6 and gastric myoelectrical activity

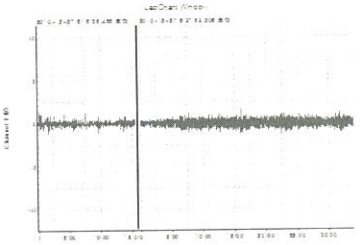
1. Electrical response at the Ryodoraku point H4, 5, 6 may be depent on an afferent sympathetic spinal reflex transmitted from the stomach.
2. There was no evidence for making clear whether bilateral lowering of electrical activity at this point was induced by hypofunction of local sympathetic nerve in the skin itself or of signals transmitted from the gastric sympathetic nerve or not.

5. Ryodoraku

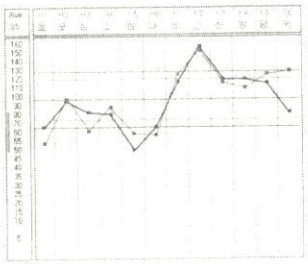
Sympathetic nerve function to electrical response of Ryodoraku point and disarrangement of its meridian location on the anatomical viscera

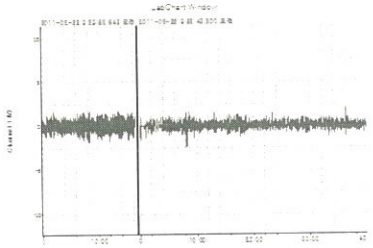
Case 1-2





Case 1-3

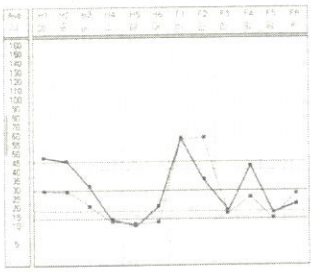


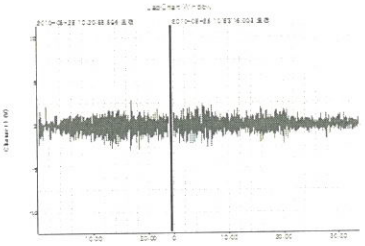


5. Ryodoraku

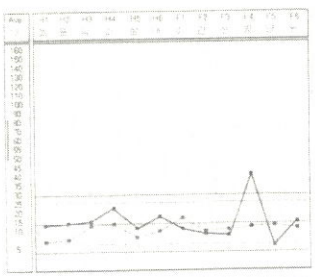
Sympathetic nerve function to electrical response of ryodoraku point and disarrangement of its meridian location on the anatomical viscera

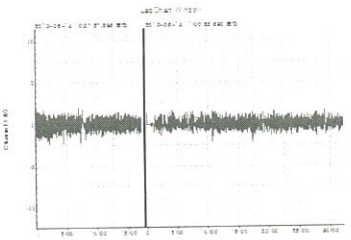
Case 2-2





Case 2-3





5. Ryodoraku

Sympathetic nerve function to electrical response of Ryodoraku point and disarrangement of its meridian location on the anatomical viscera

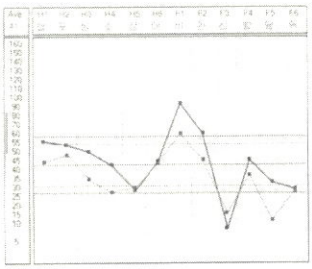
- Alterability

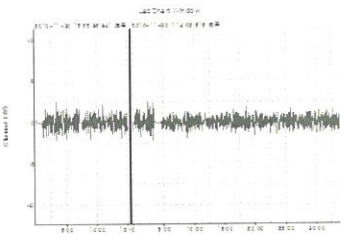
1. Range of Normal sympathetic tone is 40 ~ 80 μA.
2. Ryodoraku phenomena was disappeared when skin sympathetic tone is below 17 μA or above 80 μA
3. Data processing of Ryodoraku
    1. A norm was set for the size of the gradation of the physiological range and this was determined by taking the median of the physiological range when the average value of the electric current was 50 μA.
    2. Thus 1.4cm became the standard size of the gradation.
    3. The ranges of the lower part of the scale had to be lengthened and those of the upper part shortened.

5. Ryodoraku

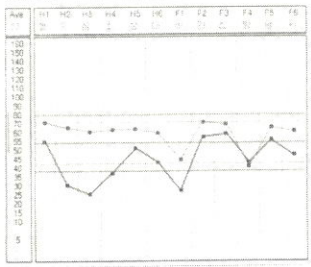
Sympathetic nerve function to electrical response of ryodoraku point and disarrangement of its meridian location on the anatomical viscera

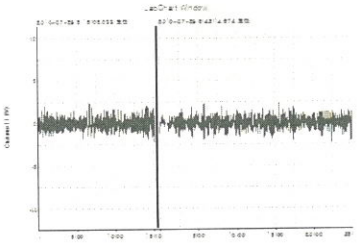
Case 21





Case 22





5. Ryodoraku

Sympathetic nerve function to electrical response of Ryodoraku point and disarrangement of its meridian location on the anatomical viscera

- Anomaly

1. The unprecedented normal range of average current in Ryodoraku test in spite of the decreased gastric myoelectrical activity.
2. This may be caused by interference effect of drugs that suppress the pepipheral sympathetic nerve.
3. To check right Ryodoraku
   1. Exclude the interference effect
   2. Refer other measurement, ex. EGG.

5. Ryodoraku

Sympathetic nerve function to electrical response of Ryodoraku point and disarrangement of its meridian location on the anatomical viscera

- Coincidence of Anatomical stomach and meridian location of stomach

1. F6 Ryodoraku was thought related with The Stomach Meridian(ST).
2. But the percentage was just 16% which abnormal current of F6 was showed up.
3. The coincidence of 16% could not provide a visceral arrangement of the stomach between anatomy and meridian systems.

6. HRV

1. HRV
   1. HRV tests are non-invasive methods of evaluating the integrity and functional state of the ANS and may be carried out using the short-term ECG recordings or long-term measurement (Holter's ECG).
   2. Time domain or frequency domain analyses are the methods of HRV assessment

2. HRV and FD
   1. Correlation between HRV and Bowel Sounds Parameters

6. HRV

Correlation between HRV and Bowel Sounds Parameters

- Referenced by Korean J. Orent. Int. Med. 2009:30(1);173-180

Correlation between HRV and Bowel Sound Parameters in the Evaluation of Gastrointestinal Parasympathetic Nerve Activity from Patients with Functional Dyspepsia

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ABSTRACT
Objectives : The aim of this study was to investigate the evaluation of gastrointestinal parasympathetic nerve activity by comparing between HRV and bowel sound parameters in patients with functional dyspepsia.
Methods : 60 patients (male 20, female 40) were enrolled. HRV was measured in all patients and TP (total power), LF (low frequency density; 0.04~0.15Hz), HF (high frequency density; 0.15~0.4Hz), and LF/HF ratio were analyzed. HF band is a reflection of parasympathetic activity, and the LF-to-HF ratio is considered a marker of sympathovagal balance. Bowel sounds were recorded at the day after, and postprandial %BC was used to indicate the gastric vagal activity after eating. HRV and bowel sound parameters were compared, and correlation between them was analyzed.
Results : There was no difference in LF/HF ratio between patient group and healthy group of other report. According to values of %BC, each patient was classified into a normal (>6 %BC) or hypoactivity (<6 %BC) of gastric vagus nerve group. HF component of the hypoactivity group was not significantly higher than that of the normal group. There was no correlation between HRV and bowel sound parameters.
Conclusions : Because no correlation was found between HRV and bowel sound parameters in patients with functional dyspepsia, we concluded that it is not proper to evaluate gastric vagus nerve activity by HRV measurement.

Key words : HRV, Bowel Sound, Vagus nerve, Functional Dyspepsia.

6. HRV

Correlation between HRV and Bowel Sounds Parameters

1. Purpose

To investigate the evaluation of gastrointestinal parasympathetic nerve activity by comparing between HRV and bowel sound parameters in patients with FD.

2. Method

1. HRV was measured in 62 patients, and TP(total power), LF(low frequency density), HF(high frequency density), and LF/HF ratio were analyzed .
2. Bowel sound was recorded at the day after, and postprandial %BS was used to indicate the gastric vagal activity.
3. HRV and bowel sound parameters were compared.

6. HRV

Correlation between HRV and Bowel Sounds Parameters

	Normal activity BS<6%(n=17)	Hypoactivity BS≥6%(=45)	P-value*
lnHF	5.51±0.86	5.26±1.27	0.435
HFnorm(%)	56.86±18.77	49.73±18.46	0.246
LF/HF	0.98±0.75	1.47±1.54	0.246

* Man-Whitney

Table 3. Comparison of parasympathetic activity between normal and hypoactivity of gastric vagus nerve group in FD patients.

- Normal value of postprandial %BS is 6%.
  Postprandial %BS < 6% is regarded as hypoactivity of gastric vagus nerve.
- There was no difference of HRV parameters statistically between normal and hypoactivity of gastric vagus nerve group in FD patients.

6. HRV

Correlation between HRV and Bowel Sounds Parameters

	Correlation Coefficient(P-value)*		
	lnHF	HFnorm	LF/HF ratio
%BS	0.037(0.773)	0.096(0.458)	0.174(0.176)

*. Pearson Correlation

Table 4. Correlation analysis between HRV and Bowel sound parameters.

- No correlation could be found between HRV and Bowel sound parameters
- HRV is mostly effected by autonomic nerve function related to heart, so it need to be careful which HRV parameters is used for understanding gastric nerve function.

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제10회 대한한의학회 학술대상 수상논문

Methyl Gallate Exhibits Potent Antitumor Activities by Inhibiting Tumor Infiltration of CD4+CD25+ Regulatory T Cells

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Abstract

CD4+CD25++ regulatory T (Treg) cells play crucial roles in the host response to tumors. Increasing evidence supports the existence of elevated numbers of Treg cells in solid tumors and hematologic malignancies. In this study, the effects of methyl gallate on Treg cells were examined. Methyl gallate inhibited Treg cell suppressive effects on effecter CD4+T cells and Treg migration toward tumor environment. The expression of Treg surface markers including CTLA-4, CCR4, CXCR4 and GITR were significantly suppressed upon methyl gallate treatment. Furthermore, Foxp3 expression was also significantly decreased by methyl gallate, suggesting that the suppressive effects of methyl gallate on Treg were medicated by decrease of Treg specific transcription factor Foxp3. In tumor bearing hosts, methyl gallate treatment substantially reduced tumor growth and prolonged the survival rate. On the other hand, nu/nu mice did not show decreased tumor progression in response to methyl gallate. In addition, in tumor-bearing Treg depleted mice, tumor growth and the survival rates were not changed by methyl gallate treatment, strongly suggesting that the main therapeutic target of methyl gallate in tumor suppression was related to modulation of the CD4+CD25+ Treg cell functions. In the spleen of tumor bearing mice, methyl gallate treatment induced a significant decrease in the CD4+CD25+Foxp3highTreg cell population. Especially, the number of tumor-infiltrating CD25+Foxp3highTreg cells was significantly lower in methyl gallate treated mice. These results suggest that methyl gallate can be used to reverse immune suppression and as a potentially useful adjunct for enhancing the efficacy of immune-based cancer therapy.

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최근 주요 연구

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etc 90 papers

우수상

A randomized pilot study of acupuncture as an adjunct therapy in adult asthmatic patients

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Abstract

Objectives: This trial aimed to evaluate the feasibility of estimating the effectiveness of acupuncture on asthmatic patients under conventional medical management. PARTICIPATIONS AND METHODS: A prospective randomized, patient/assessor-blinded, sham acupuncture-, and waiting list-controlled pilot trial was conducted. Forty-five eligible asthmatic participants underwent a 1-week run-in period and were then randomized into one of three groups: an active acupuncture group, a sham acupuncture group, and a waiting list group. They were instructed to maintain the use of antiasthmatic medications. Needling was administered three times per week for 4 weeks with a 2-week follow-up in the active and sham acupuncture groups. The primary outcome was daily morning peak expiratory flow (PEF) and the secondary outcomes included forced expiratory volume one second (FEV(1)), quality of life questionnaire for adult Korean asthmatics (QLQAKA), transition dyspnea index (TDI), serum eosinophil count, and total serum immunoglobulin E (IgE).

Results: No significant differences in the between- or within-group values of weekly average PEF (recorded daily in the morning) and FEV(1) were found. For QLQAKA and TDI, the active acupuncture group showed a significant improvement over the waiting list group at 2, 4, and 6 weeks after randomization.

Discussion: Acupuncture as an adjunct therapy to conventional medical care does not seem to affect

pulmonary function in asthmatic patients. However, 12 sessions of acupuncture treatment during 4 weeks showed a favorable effect on the quality of life in adult asthmatic patients. Further large trials assessing the effectiveness of acupuncture on the quality of life and symptoms in asthmatic patients are needed.

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2010. 11.- 2012. 10. 보건복지부과제
연구과제명 : 한방조성물 PM014를 이용한 만성폐쇄성폐질환(COPD) 치료제 개발 (연구책임자)

우수상

Susceptibility for ischemic stroke in Four Constitution medicine is associated with polymorphisms of FCGR2A and IL1RN genes

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Abstract

Objectives: In order to determine the association of four constitutional classification and Fcɣ receptor IIA (FcɣRIIA), interleukin-1 receptor antagonist (IL-1Ra) in genetic susceptibility to ischemic stroke,

Methods: we classified the four constitutional types in ischemic stroke patients (n = 162) and the healthy control subjects (n = 135), and genotyped for FCGR2A and IL-1Ra polymorphism using direct DNA sequencing and polymerase chain reaction (PCR) methods.

Results: In the IL-1Ra polymorphism, IL1RN*1/IL1RN*2 genotype (OR = 5.80; p =0.0142), and in the FCGR2A polymorphisms, rs7535475 (OR = 0.58; p = 0.0218), rs7512140 (OR = 0.09; p = 0.0335) were significantly associated with ischemic stroke. The prevalence of IL1RN*1/IL1RN*2 genotype of IL-1Ra and rs7535475 of FCGR2A in greater yin person ischemic stroke patients were different from greater yin person healthy controls (OR = 18.97; p = 0.0063, OR = 0.38; p = 0.0045).

Discussion: These results suggest that IL1RN*1/IL1RN*2 genotype in greater yin person might be associated with the increasing risk, and rs7535475 of FCGR2A might be associated with the decrease risk for ischemic stroke. Furthermore, this relationship could provide the basis for a new approach in the investigation of the etiology of ischemic stroke.

Key words: Acupuncture; Interleukin-1 receptor antagonist; Fcγ receptor IIA; Ischemic stroke; Polymorphism; four constitution medicine

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대한한방내과학회 편집위원

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The vasoprotective effect of JP05 through the activation of PI3K/Akt-dependent eNOS and MEK/ERK pathways in brain endothelial cells

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Abstract

Aim of the study: Endothelial dysfunction is involved in stroke. Recent therapeutic options for stroke have focused on the combination therapy with a polyherbal mixture. This study was designed to provide insight into the effects of JP05, a water extract of 12 herbs, on the levels of regulators in bEnd.3 mouse brain endothelial cells.

Materials and methods: Production of endothelial nitric oxide synthase (eNOS)-mediated nitric oxide (NO), the expression of vascular endothelial growth factor (VEGF) and the phosphorylations of eNOS, phosphatidylinositol 3-kinase (PI3K)/Akt, extracellular signal-regulated protein kinase (ERK) and cAMP response element binding protein (CREB) in JP05 were assayed in bEnd.3 cells, a mouse brain endothelial line.

Results: JP05 led to increase the levels of eNOS-mediated NO generation and VEGF expression in bEnd.3 cells. JP05 induced the phosphorylation of eNOS, Akt and ERK in bEnd.3 cells. As well, JP05 blocked the inhibition of PI3K/Akt and ERK activities by LY294002 (PI3K/Akt inhibitor) and PD98059(mitogenactivated protein kinase inhibitor), respectively. JP05 also induced the phosphorylation of CREB, which plays an important role in endothelial cell function and blood vessel development.

Conclusion: Taken together, these results indicate that JP05 can upregulate eNOS- mediated NO generation and VEGF expression through the ERK and/or PI3K/Akt activation, an upstream event of angiogenesis. JP05 with vasoprotective properties has a potential therapy for human brain diseases including stroke.

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Contralateral acupuncture versus ipsilateral acupuncture in the rehabilitation of post-stroke hemiplegic patients: a systematic review

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한 창 호
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Abstract

Background: Contralateral acupuncture (CAT) involves inserting needles in the meridian on the side opposite the disease location and is often used in post-stroke rehabilitation. The aim of this systematic review is to summarize and critically evaluate the evidence for and against the effectiveness of CAT for post-stroke rehabilitation as compared to ipsilateral acupuncture (IAT).

Methods: Seventeen databases were searched from their inceptions through June 2010. Prospective clinical trials were included if CAT was tested as the sole treatment or as an adjunct to other treatments for post-stroke rehabilitation and compared to IAT.

Results: Eight randomized clinical trials (RCTs) met our inclusion criteria. Four of them reported favorable effects of CAT compared to IAT for at least one outcome. A meta-analysis showed superior effects of CAT compared to IAT on recovery rate (n = 361; risk ratio (RR), 1.12; 95% confidence intervals (CIs), 1.04 to 1.22, P = 0.005). Subgroup analysis also showed favorable effects of using CAT on patients with cerebral infarction (n = 261; RR, 1.15; 95% CIs, 1.04 to 1.27, P = 0.006). Further analysis including patients with cerebral infarction and intracranial hemorrhage, however, failed to show these advantages (n = 100; RR, 1.11; 95% CIs, 0.85 to 1.46, P = 0.43).

Conclusion: The results of our systematic review and meta-analysis suggest that there is limited evidence for CAT being superior to IAT in the treatment of cerebral infarction. The total number of RCTs included in our analysis was low, however, and the RCTs included had a high risk of bias. Future RCTs appear to be warranted.

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