

The Journal of Acupuncture and Oriental Medicine

A Pilot Study of the Safety and Feasibility of Traditional Chinese Medicine for Treatment of Anal High Grade Squamous Intraepithelial Lesions (aHSIL)

AOM Clinic Superusers: A Comparison of Demographics and Patterns of Usage Between the Sexes

Huang Di Nei Jing in the Curriculum of ACAOM-Accredited Schools: A Survey Post-Traumatic Stress Disorder Treated with Traditional Chinese Medicine

Commentary: The Role of Chinese Medicine in Mental Health Treatment in the 21st Century

A Guide to Funding from the National Institutes of Health

Clinical Pearls: How Do You Treat Thoracic (Upper & Middle Back) Pain?

Book Review: Acupuncture as an Adjuvant in the Treatment of HIV/AIDS: Examining Disparities in Access, Cost-Effectiveness and Public Health Considerations



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MERIDIANS

The Journal of Acupuncture and Oriental Medicine

Letter from Editor in Chief Jennifer A. M. Stone, LAc



Welcome to the 2015 spring issue of *Meridians JAOM*. In this issue we are pleased to present three original research papers and a case report as well as some other notable features.

Our lead manuscript is an expertly designed clinical research study, "A Pilot Study of the Safety and Feasibility of Traditional Chinese Medicine for Treatment of Anal High Grade Squamous Intraepithelial Lesions (aHSIL)" by Naomi Jay, PhD, Christine Miaskowski, PhD, J. Michael Berry, MD, Teresa M. Darragh, MD, Maria Da Costa, MS, Joel Palefsky, MD, and Misha Cohen, OMD, LAc. This pilot study is the first to evaluate a TCM treatment for aHSIL. The article indicates this treatment is deemed safe, the design is feasible,

and the data reveal promising results.

Our next piece, "AOM Clinic Superusers: A Comparison of Demographics and Patterns of Usage between the Sexes" by Forrest Cooper, MAcOM, DAOM, LAc, (Dipl NCCAOM) reports on data collected through a retrospective review of charts of superusers (AOM patients who were treated 100+ times in clinics of an Oriental medical college). Cooper presents and discusses various significant demographics on the patients who visit the school clinics most often.

Our third research piece, by Philip G. Garrison, DAOM, "Huang Di Nei Jing in the Curriculum of ACAOM-Accredited Schools: A Survey," presents feedback from classroom teachers at ACAOM-accredited schools in the United States that teach the Nei Jing as part of their curriculum. Each teacher was asked to identify what they believed to be the ten most important chapters for master's level students. This study's results indicate steps that can be taken to create a consensus-based Nei Jing curriculum in all AOM schools.

Our case study, "Post-Traumatic Stress Disorder Treated with Traditional Chinese Medicine: A Case Report" by Hoon B. Lee, MSOM, LAc reviews the successful use of TCM in a 23-year-old female patient who developed PTSD after she was mentally and physically abused by a boyfriend. We also feature a commentary, "The Role of Chinese Medicine in Mental Health Treatment in the 21st Century" by Will Fudeman, LCSW, LAc. Fudeman discusses both modern and ancient treatment for mental illness and suggests that collaboration and interaction with psychotherapists have merit today for both parties.

I have prepared a short article, "A Guide to Funding from the National Institutes of Health." The guide summarizes the different types of funding mechanisms used by the NIH (and specifically for the NCCIH, previously the NCCAOM) and discusses what the different grant awards pay for and how to apply. The guide is available in our open access version and serves as a valuable resource for AOM students, faculty and schools who are interested in federal funding.

The book, Acupuncture as an Adjuvant in the Treatment of HIV/AIDS: Examining Disparities in Access, Cost-Effectiveness and Public Health Considerations by Elizabeth Sommers, PhD, MPH, LAc is reviewed by S. Prasad Vinjamury, MD (Ayurveda), MAOM, MPH. The review discusses Dr. Sommers' presentation of why and how acupuncture can be used as a viable adjuvant in the treatment of HIV/AIDS.

Meridians JAOM welcomes letters to the editor from our readership. Please send them to info@meridiansjaom.com and be sure to include your full name and any licenses and/or titles, your phone number, and email address.

In our Clinical Pearls section, different treatments are investigated for thoracic pain and thoracic injury that causes radiating pain. Thoracic pain is less common and less studied than cervical and lumbar pain. Please read how the profession's experts treat this problem. Also please consider contributing a clinical pearl for possible publication in the summer issue of Meridians: JAOM. Check our website, www. meridiansjaom.com, to see the new clinical pearl topic, the submission deadline, and a link about details for submission.

As always, we continue to invite your questions, submissions, feedback, and letters to the editor. info@meridiansjaom.com.

Thank you and we hope you enjoy reading our spring 2015 issue.

Jennifer A. M. Stone, LAc

Editor in Chief, Meridians: The Journal of Acupuncture and Oriental Medicine

Letter from Public Health Editor

Public Health Perspective - Advancing the Dialogue

This issue of Meridians JAOM brings a variety of issues and methodologies related to the intersection of acupuncture and public health practice. The elements of public health include access (how easy is it to get the treatment?), acceptability (although we as acupuncturists may know a treatment works, will the public agree to try it?), and appropriateness of care (is the treatment helpful and/or effective?).

As professionals in acupuncture and traditional East Asian medicine (TEAM), we are part of a *de facto* healthcare network. This network extends from the micro level (our own clinics and hospitals where we work) to macro global health connections). Issues that are relevant for both ends of this spectrum include: professional education; informing the public about our services; and ensuring the safety and acceptance of our work. Examining these issues through the lens of public health can be critical to the global understanding, dialogue, and advancement of TEAM.

This issue includes two articles that mental health and stress. In a short piece, Will Fudeman, LCSW, LAc examines the role of big pharma in promoting psychiatric medications and reminds us about the mind-body connection inherent to acupuncture. Hoon Lee, MSOM, LAc discusses a case report that examines a non-pharmacological approach to managing the deleterious effects of PTSD on mind, body and spirit. Lee also raises the issue of working with physicians who are treating our patients and recommends coordinated efforts to transition patients from psychiatric medications.

Philip G. Garrison, DAOM contributes an article that assesses professional education in schools of traditional East Asian medicine. His questions about pedagogy of our training have broad implications for the future of education in the U.S. In a report on a study conducted by Naomi Jay, PhD and her colleagues, Jay tackles core public health issues in the context of a clinical assessment.

As you read these articles, be aware of the multi-levels of this information you encounter. Facts and detailed data are presented and can be appreciated from clinical perspectives. Concepts of access, acceptability, and appropriateness of care form an underlying framework for appreciating the work from a public health standpoint.

Wishing you enjoyable and enlightening reading!

Elizabeth Sommers, PhD, MPH, LAc

Public Health Editor, Meridians: The Journal of Acupuncture and Oriental Medicine

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A Pilot Study of the Safety and Feasibility of Traditional Chinese Medicine for Treatment of Anal High Grade Squamous Intraepithelial Lesions (aHSIL)

By Naomi Jay, PhD, Christine Miaskowski, PhD, J. Michael Berry, MD, Teresa M. Darragh, MD, Maria Da Costa, MS, Joel Palefsky, MD, and Misha Cohen, OMD, LAc

Please see bios at the end of the article

Abstract

Objectives: Anal high-grade squamous intraepithelial lesion (aHSIL) is considered the cancer precursor lesion, and its treatment may prevent the development of anal cancer. The standard treatment is ablative therapy, which is invasive and painful. Many patients seek alternate approaches, such as traditional Chinese medicine (TCM). The study's objective was to determine the safety and feasibility of a 9-month treatment for aHSIL consisting of acupuncture, moxibustion, and self-applied TCM ointment. Efficacy was evaluated as a secondary aim.

Methods: Patients received weekly acupuncture and moxibustion; TCM ointment was self-applied twice daily. Patients were followed every three months for one year, with high-resolution anoscopy (HRA), cytology, histology, and monitored for adherence and safety.

Results: Thirteen men and two women (14 HIV-positive) enrolled in the study. Adherence to acupuncture and self-applied TCM cream was excellent in 10 patients (>90% applications), good in four patients (>50% applications) and poor in one who discontinued treatment due to an unrelated illness. Adherence to self-applied moxibustion was good in nine patients (>50% applications) and poor in the remaining six patients (<25% applications). No serious adverse events occurred. Complete lesion regression or partial regression to low-grade SIL defined as histology at 12 months (e.g., three months post-treatment) occurred in four (27%) patients. Two additional patients with lesion regression developed metachronous aHSIL, and a third had recurrence of aHSIL in a prior site of aHSIL.

Discussion: This pilot study is the first to evaluate a TCM treatment for aHSIL. The treatment was safe and feasible although adherence varied depending on modality, indicating different acceptability to TCM methodologies. The total response rate, including those with recurrence post-treatment, was 40%. Post-treatment recurrence for aHSIL is common in western therapy as well.

Conclusions: TCM treatment was safe and feasible and may be an effective treatment for anal HSIL. Larger, randomized trials are required to determine the immediate and long-term efficacy of TCM as treatment for anal HSIL.

Key Words: TCM treatment, anal HSIL

Introduction

Invasive anal squamous cell cancer (aSCC) is a relatively rare disease with an estimated incidence rate of 1/100,000 persons.^{1,2} However, its incidence is elevated in high-risk populations, including immunocompromised patients and men who have sex with men (MSM). Prior to the onset of the HIV epidemic, the incidence of anal cancer was estimated at 35/100,000 among MSM,3 similar to the rates of cervical SCC (cSCC) prior to cytology screening, and several-fold higher than current rates of cSCC in the United States.⁴ The current incidence of aSCC among HIV-positive MSM is estimated at 70 to 131/100,000.5-7 latrogenically immunocompromised women have higher incidences of all HPV-associated anogenital squamous cancers,8 and the relative risk of aSCC among HIV-seropositive women is estimated at 6.8.9

The natural history of cervical high-grade squamous intraepithelial lesions (cHSIL) and its relationship to cSCC is well established.¹⁰⁻¹² The decreased incidence in cSCC is attributed to implementation of routine screening and treatment of cHSIL. AHSIL is considered the aSCC precursor lesion. 13,14 The progression of aHSIL to aSCC has been reported by several studies. 15-18 Thus, based on the analogy to cervical disease, treatment of aHSIL may prevent development of invasive disease.

The mainstay of treatment for aHSIL is ablation utilizing surgical-based electrocautery or office-based infrared coagulation (IRC) to fulgurate lesions. 19-21 Surgical-based treatments have high rates of postoperative morbidity. 16,22 IRC has less morbidity than surgery but is still an invasive procedure. All have high rates of recurrence. 23-25 Ablative therapy may be inappropriate for large or circumferential lesions. Ablation of large lesions may induce strictures or result in incomplete treatment. Neutropenic or thrombocytopenic patients may not be candidates for ablation.

Recent publications indicate the potential for topical treatments including 5-flououracil 5% and imiguomod.^{26,27} These may cause significant adverse effects and intra-anal use is not FDA-approved. Traditional Chinese medicine (TCM) may provide an effective, alternate treatment for aHSIL but has not been evaluated for feasibility, safety, and efficacy.

Traditional Chinese Medicine Therapy

Originating from Taoist philosophy's yin-yang theory, the primary goal of TCM therapies is to restore the patient's harmony and balance caused by disease, which is considered

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"The safety and feasibility of a nine-month TCM treatment for aHSIL using multiple TCM modalities was evaluated. The primary aim was completion of the protocol without significant adverse events. Secondary endpoints included clinical response and the validation of TCM diagnoses associated with aHSIL."

an imbalance. Treatments are chosen to restore this balance. Individualized treatments using multiple modalities are common. This study included three modalities: acupuncture, the insertion of metal filiform needles; moxibustion, the burning of mugwort (Artemisia vulgaris) to stimulate or warm points or channels; and the topical application of Arnebia Indigo Jade and Pearl ointment (AIJPo).

AlJPo was developed for treatment of aHSIL and is based on traditional formulas. It combines Jade Pearl cream, *Huang Lian Gao*, and *Zi Gui Yu* into one ointment. These latter two formulas are referenced as early as the Chin Dynasty (circa 3rd C.E.) and were used for dermatologic disorders such as infections and burns. ^{28,29} Jade Pearl cream has been used in Chinese and Tibetan medicines for skin rejuvenation and for treatment of precancerous or malignant skin lesions. 30,31 Several herbs in these formulas have been used for treatment of genital warts. ^{29,32-35}

The safety and feasibility of a nine-month TCM treatment for aHSIL using multiple TCM modalities was evaluated. The primary aim was completion of the protocol without significant adverse events. Secondary endpoints included clinical response and the validation of TCM diagnoses associated with aHSIL.

Materials and Methods

This phase I, non-randomized, open-label trial consisted of individualized weekly acupuncture and moxibustion treatments by a licensed acupuncturist (LAc) and self-applied daily AIJPo and moxibustion. Men and women 18 years and older with histologically confirmed aHSIL were enrolled. Enrolled patients had refused or had circumferential aHSIL considered inappropriate for ablation. HIV-seropositive patients were required to be on a stable HIV treatment regimen for at least eight weeks prior to enrollment. Patients with a history of anogenital cancers or with granulocyte counts of <1500mm3 or platelet counts <70000mm3 were excluded.

A convenience sample was recruited from the University of California San Francisco (UCSF) Anal Neoplasia Clinic and from referral by community clinicians. Safety studies, anal examinations, and specimens were obtained at the UCSF General Clinical Research Center (GCRC). Patients had TCM evaluations and acupuncture treatments at Chicken Soup Chinese Medicine,

San Francisco. Approval for this study was obtained from the UCSF Committee on Human Research (CHR). A total of 24 patients were evaluated for the study and fifteen met the inclusion criterion.

Safety Procedures

Preliminary safety studies were performed with the first six patients. When no adverse events occurred during their first four weeks of treatment, the remaining patients were enrolled. HIV-seropositive individuals received HIV RNA viral load testing twice before treatment initiation, at weeks two and four, and at three-month intervals. Safety was monitored by complete blood counts (CBC), liver transaminase tests, and HRA every three months. Women were instructed to avoid pregnancy during the study.

TCM Procedures

Patients received a baseline and final TCM evaluation. This included a TCM interview and tongue and pulse diagnoses. TCM treatment consisted of standardized acupuncture points based on channel theory and the individual's TCM diagnoses. For aHSIL, standardized acupuncture points were: Du-1, Du-20, UB-57, UB31-34, UB-60, and Ki-3. The practitioner chose two of four Baliao (UB31-34) at each visit. Baliao, UB-60, and Ki-3 were needled bilaterally. Individualized acupuncture points, determined by TCM diagnoses, were also used in some patients.

At the weekly acupuncture visits, patients received moxibustion over the sacrum. Patients received two jars of AIJPo and moxibustion sticks every three months for self-applied therapy. They were instructed to apply ¼ teaspoon of AIJPo twice daily to the affected area(s) (internal or peri-anal or both) and to self-apply the moxibustion heat near the sacrum twice daily. Additional AIJPo was dispensed if needed. Patients were given treatment logs to monitor adherence and to record side effects. Adherence and adverse events were assessed at three-month intervals.

A single batch of AIJPo was manufactured by a facility specializing in the production of TCM ointments. Seven herbs (i.e., arnebia, coptis, safflower, angelica, peach pit, rehmannia, licorice) were infused in sesame oil for six weeks. The herbs were then pressed from the oil and removed. The herb-infused oil (HIO) was heated to 1600F. The HIO and the three powdered ingredients

(i.e., indigo, jade, pearl) were then whipped into beeswax heated to 1900F. The ointment was then poured into sterile 4-ounce glass jars and sealed. The ratio of herbs, minerals, oils, and beeswax was determined by a proprietary blend (Drug Master File held by Springwind Inc., Berkeley, CA). An investigational new drug (IND) license was approved by the FDA for treatment of aHSIL (IND #68903).

Ointment ingredients were verified before and after production. Using macroscopic, microscopic, and organoleptic examinations, Springwind Inc. verified the ingredients pre-production and ascertained the absence of bacterial or chemical contaminants. AIJPo was then tested by an independent laboratory, Alkemists Pharmaceuticals (Costa Mesa, CA), using high performance thin-layer chromatography (HPTLC) to verify that all ingredients were present post-production.

Efficacy

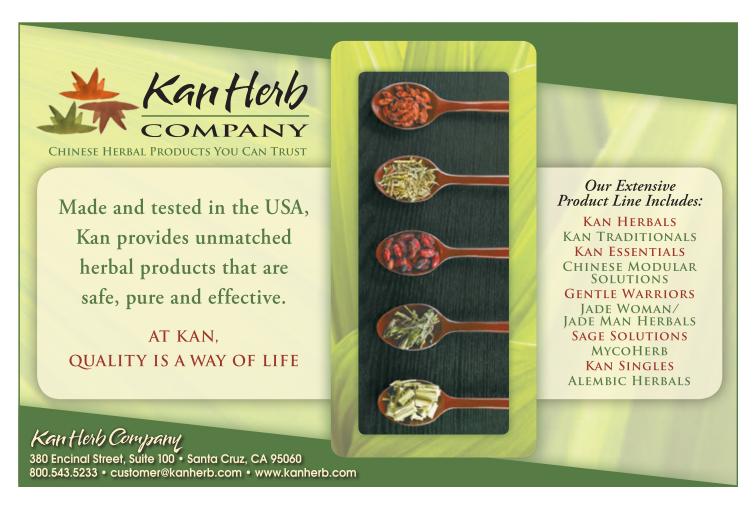
Patients received high resolution anoscopy (HRA), cytology, and biopsies at baseline and every three months as described previously.³⁶ A single pathologist, who was blinded to the patient's

clinical status and prior history, evaluated pathology. Efficacy was evaluated by monitoring changes in the number or size of lesions and histologic grade. Lesion number, size and location were documented at each HRA visit. Lesion size was coded as percentage of circumferential involvement of the anal canal: <25%, 25% to 50%, 51% to 75%, and >75%. Change in lesion size was evaluated at each HRA visit by comparing photographs and lesion descriptions to prior visits. Patients whose lesion regressed by HRA had biopsy of the area of prior aHSIL for histologic verification.

Aliquots were taken from the cytology specimens for high-risk (HR) and low-risk (LR) HPV types with PCR analysis. PCR was performed using MY09/MY11 consensus primers according to previously published methods.³⁷ The PCR results were recorded on a scale from 0 (negative) to 5 based on the signal strength intensity on the dot-blots, as described previously.³⁸

Statistical Analysis

Treatment adherence was determined by calculating the percentage of adherence with each treatment modality. An applicable published scale was not available. Therefore, based on the TCM





(MC) and Western (NJ) clinicians' assessment of reasonable compliance, good adherence was considered >80%, moderate adherence was between 80% and 50%, and fair adherence was < 50%. Safety was evaluated by pre- and post-treatment measures of the patients' hematologic, renal and hepatic function and in HIV-seropositive patients' CD4+ and HIV viral load. Effectiveness was evaluated by clinical response and pathology. Complete response (CR) was defined as regression from aHSIL to negative cytology, benign histology, and the absence of visible lesions at HRA. Partial response (PR) was defined as regression from aHSIL to histology showing aLSIL or atypia. Disease recurrence was defined as a recurrence of aHSIL after CR or PR.

Comparison pre- and post-treatment of the percent of disease and number of lesions was also used to assess clinical improvement. Responses were compared with pre-treatment percentage of disease, number of lesions, HPV DNA signal strength and quantity, and TCM diagnoses.

Results

Feasibility and Safety

Fourteen HIV-seropositive and one HIV-seronegative patients enrolled in the study, 12 men and three women. The mean age was 39 years (range 32 to 59). Thirteen patients completed all acupuncture and office moxibustion treatments. Two patients missed 3-4 of the weekly acupuncture treatments. One patient required an additional two months to complete the study as she had ceased treatment during a period of illness unrelated to the study. Thus all but two completed nine months of therapy.

All patients successfully self-applied AlJPo. Adherence was good in 10/15 patients who applied it twice daily at least 90% of the time. Adherence was moderate in four patients who used the ointment at least 50% of the time. Some used it consistently but only once daily. The remaining patient used the ointment for the first three months and infrequently. The total amount of ointment dispensed varied widely from one jar in two patients to 15 jars in one patient (see Table 1).

TABLE 1 Adherence Rates with the Various TCM Treatment Modalities

Subject	AIJP	Number Jars Dispensed	Moxi- bustion	Acu- puncture	Logs Kept
1004	>90%	5	>80%	100%	100%
1005	>90%	3	50%	100%	100%
1007	>50%	3	>80%	100%	100%
1009	100%	15	0%	100%	0%
1010	>90%	3	0%	100%	100%
1011	10%	1	0%	100%	0%
1012	>90%	6	33%	100%	50%
1013	100%	3	>50%	100%	50%
1016	>90%	3	>50%	100%	100%
1018	>90%	2	50%	100%	0%
1019	50-75%	1	<50%	100%	0%
1021	100%	3	100%	95%	100%
1022	>90%	2	50%	100%	50%
1023	>70%	2	25%	95%	0%
1024	>70%	7	25%	95%	0%
MEAN	79.7%	3.9	39.5%	99%	50%
MODE	>90%	3	50%	100%	100%, 0%

Adherence with self-applied moxibustion was less successful. Only 3/15 patients used it twice daily >80% of the time. Six patients reported using it <25% of the time. The remaining six patients reported using it approximately 50% of the time, either once daily or intermittently twice daily. Patients reported that applying it was difficult or that the smell was bothersome.

There were two adverse events. One patient received a mild burn during office moxibustion treatment that resolved with an additional topical TCM ointment. One patient complained of a peri-anal rash that resolved using an additional topical TCM ointment. Both were considered grade 2 adverse events based on the Common Terminology Criteria for Adverse Events (CTCAE v4.0). No serious adverse events occurred. In HIV-seropositive patients, there were no changes from baseline HIV RNA viral load attributed to the medication.

Disease Burden and HPV

At baseline, the number of anal canal and peri-anal lesions ranged from one to circumferential disease in which number of lesions could not be determined. Eleven patients had 2-3 lesions (see Table 2). Fourteen patients had intra-anal disease, including one with both intra- and perianal lesions; one patient had only perianal disease. In nine patients, the percentage of disease was <25%, in six patients it was >50% including one patient each with

circumferential intra- and peri-anal disease. The percentage of disease decreased in five patients, was stable in nine patients, and worsened in one patient.

TABLE 2 Baseline Disease Status

Subject	Location of HSIL Internal (I) External (E)	Number of Lesions	% Disease	HPV Strength (+ = Betaglobin present	HPV No. Types
1004	I	2	50-75%	NA	NA
1005	I	2	50%	+4	33
1007	I	3	<25%	+0	0
1009	E	3	25%	+4	16,33,53
1010	I	1	<25%	+3	53,58
1011	I	2	<25%	+4	52,53,58,70,2
1012	I	2	25%	+0	NA
1013	I	3	25%	+4	16,4
1016	I	2	<25%	+4	53,70
1018	I	7	>75%	+4	6,16,52,68
1019	I	2	<25%	+4	Mix*
1021	ı	5	50-75%	+4	6,11,18,31, 39,45,59
1022	I,E	Int 4 Ext >10	I 25-50%, Ext >75%	+4	32,33,39, 59,68, 70,Mix*
1023	I	2	25-50%	+4	16
1024	I	2	25%	+4	6

At baseline, 12 patients were HPV positive, two were negative, and one sample was insufficient. Negative HPV DNA did not correlate with location of HSIL or disease burden. Of the HPV positive patients, the strength was +4, considered a high HPV viral load, in all but one patient. Only four patients had HPV 16 or 18, the two types most commonly associated with aSCC and aHSIL. Other common types were HPV 53 in four patients; types 6, 33, and 7 were each found in three patients. The number of HPV strains varied from one to seven. All patients with >50% disease had at least four HPV viral types, excepting the patient with inadequate HPV sample.

Histologic Response

Table 3 shows histology or cytology results for 3-month HRA visits. Cytology was used as the diagnosis if more severe than histology. Two patients had CR of aHSIL to normal and two patients had PR of aHSIL to LSIL or atypia. Three additional patients had recurrence of aHSIL following regression. Of these three patients, two recurrences were in metachronous lesions indicating a new lesion developed at another location. The third case was a recurrence of a regressed lesion. No progression to cancer occurred. The remaining eight patients had persistent HSIL. Therefore, the efficacy rate based on the four patients with CR or PR was 26.6%. Most responders were patients with lower disease burden (<25%). Those with higher disease burden (>50%) or greater number of lesions did not respond histologically but percentage of disease decreased. There was no increase of disease in any patients.

TABLE 3 Efficacy: Histology and Cytology Results of Chinese Traditional Medicine Pilot Study

Not applicable for Strength = betaglobin negative, unable to determine presence/absence of HPV

"This study is the first to evaluate a TCM treatment for aHSIL.
The nine-month
TCM treatment using acupuncture,
moxibustion, and AIJPo was safe and feasible."

Participant	HIV Status	Baseline	3 month	6 month	9 month	12 month	Final Response
1004	Positive	H1	Н	Н	Н	Н	Stable
1005	Positive	Н	Н	Н	L ²	Н	Recurrence
1007	Positive	Н	Н	Н	Н	L	Partial
1009	Negative	Н	N³	N	H(CYT)⁵	Н	Recurrence
1010	Positive	Н	A ⁴	L(CYT)	L(CYT)	N	Complete
1011	Positive	Н	Н	Н	Н	А	Partial
1012	Positive	Н	Н	Н	Н	Н	Stable
1013	Positive	Н	Н	Н	Н	Н	Stable
1016	Positive	Н	L	L	Н	Н	Recurrence
1018	Positive	Н	Н	Н	Н	Н	Stable
1019	Positive	Н	N	L	N	N	Complete
1021	Positive	Н	Н	Н	Н	NA ⁶	Stable
1022	Positive	Н	Н	Н	Н	Н	Stable
1023	Positive	Н	Н	Н	Н	Н	Stable
1024	Positive	Н	Н	Н	Н	Н	Stable

 $^1 \text{HSIL}; ^3 \text{Negative}; ^4 \text{Atypia}; ^5 \text{CYT (cytology) indicates the most severe diagnosis was cytologic rather than histologic}; ^6 \text{Not Available}$

^{*} Mix contains HPV types 2,13,35,42,57,62,64,72,82; specimens are not evaluated for specific type in the mix

"The findings from this pilot study suggest that the TCM intervention is safe and that patients are willing to adhere to a complex treatment regimen. The treatment may be effective but requires additional testing in a larger placebo-controlled trial to determine if its effectiveness approaches the rates reported in other modalities."

TCM Diagnoses

There were four TCM diagnoses hypothesized to be associated with aHSIL. Toxic heat was diagnosed in 11 patients, Kidney *yin* deficiency in three patients, and Liver *yin* deficiency, or dampness in the lower triple burner in one patient each. Conversely, several TCM diagnoses not hypothesized for aHSIL were found including, Spleen *qi* deficiency and Liver *qi* stagnation in 11 patients each, and Kidney *qi* deficiency in five patients. TCM diagnoses did not correspond with response.

Discussion

This study is the first to evaluate a TCM treatment for aHSIL. The nine-month TCM treatment using acupuncture, moxibustion, and AIJPo was safe and feasible.

The dose of AlJPo varied widely based on the number of jars used per patient. Responders included one patient who used one jar and one who used 15 jars. Subsequent studies will need to standardize dosing and application method.

Despite the length and intensity of treatment, most patients adhered with the regimen and all completed the study. Adherence was variable with the different modalities. Most completed acupuncture and applied AIJPo daily. However, adherence was poor with self-applied moxibustion. Only a few studies have described adherence with TCM regimens.

Treatment with moxibustion as a single-modality therapy is described for reversal of breech fetal presentation in several studies, ^{39,40} but none involved self-applied moxibustion. No standard adherence measurements were found to compare these results, either for single or multi-modality treatment. The accuracy of self-reported adherence may be compromised by bias to avoid being perceived as uncooperative, but these data showed that patients willingly reported varied levels of adherence.

Although overall efficacy rate was 26.6%, an additional 20% CR was followed by recurrence. However two of these were in metachronous lesions indicating the lesions were new rather than a true recurrence. One recurrence occurred during treatment, the others were found three months post-treatment indicating successful regression which was not sustained post-treatment.

Post-treatment persistence or recurrences rates of 53% to 79% in HIV-seropositive individuals treated with ablation have been documented in other studies.^{20,41}

Other findings suggest the treatment had a clinical effect even in the absence of histologic improvement. In five patients, the percentage of disease decreased, including most of the patients with the highest burden of disease at their baseline visit. Other clinical improvements included decreases in the amount of Lugol's negative staining indicating less aHSIL, and decreases in lesion size and numbers. Two non-responders with extensive disease pre-treatment had considerable reduction in disease burden and were successfully treated with IRC ablation post-study. However, these are subjective findings. Accurate measurement is difficult due to normal fluctuations in the mucosa. Although other studies have correlated the number of lesions with outcome, ²¹ this is the first to report on the measurement of disease burden and outcome.

HR HPV types were found in all patients, but HPV 16 and 18 were uncommon. The treatment did not affect HPV viral load which remained high (+4) in most patients. Several patients showed a decrease in number of HPV types, including one patient with PR and two patients whose disease burden improved. Only one of the four responders became HPV negative, and one who was HPV negative (at baseline and 3 months) became HPV positive despite lesion regression.

Decreases in HPV viral load or number of HPV types in relation to efficacy of treatment for anal disease have been reported in a few studies using ablation and topical imiquimod.⁴²⁻⁴⁴ In our study with only 15 patients and four responders, it is difficult to draw conclusions regarding HPV. Long-term follow up will determine whether responders who remained HPV positive have recurrences.

Of the hypothesized TCM diagnoses, only toxic heat, commonly associated with chronic viruses such as HPV^{45} was found in most patients. Other common diagnoses in this cohort were Spleen qi deficiency, a diagnosis often associated with another chronic virus, HIV infection; and Liver qi stagnation often associated with high-stress lifestyles. 46

These two diagnoses were just as frequent in patients as Toxic Heat. The remaining hypothesized diagnoses, Kidney *yin* deficiency, Liver *yin* deficiency and dampness in the lower triple burner appeared to have no association with aHSIL. TCM tongue and pulse analysis was not assessed post-treatment. This omission underscores the need to improve data collection tools for TCM indicators in future studies.

Conclusions

AHSIL is being diagnosed with increased frequency as patients considered at-risk for aSCC are screened. Current treatments of aHSIL include surgical and office ablation as well as topical therapies which may be effective but have high rates of morbidities and recurrences. The findings from this pilot study suggest that the TCM intervention is safe and that patients are willing to adhere to a complex treatment regimen. The treatment may be effective but requires additional testing in a larger placebo-controlled trial to determine if its effectiveness approaches the rates reported in other modalities.

Studies of single component TCM therapies may be easier to evaluate statistically but may not provide a meaningful test of TCM as it is used in the community. For these reasons, our study was designed so that patients received a comprehensive TCM intervention for nine months.

Our protocol integrated a TCM treatment into a Western scientific study. TCM practitioners often advocate individualized treatments, but standardized treatment approaches are also used in TCM, consistent with diagnostic and treatment principles found in traditional Chinese texts, such as the *Nei Jing*. Recruitment and retention were successful in this study, but it is unknown whether a placebo-controlled study would be feasible. The effect size of 26.6% will help determine power for future studies. Based on the patients' moderate to poor adherence with self-applied moxibustion, it may need to be removed from future protocols.

TCM will continue to be sought by patients eager to avoid invasive allopathic medical treatments. The integration of research using TCM or other complementary medicines will help determine their safety and efficacy.

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BIOS:

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AOM Clinic Superusers: A Comparison of Demographics and Patterns of Usage Between the Sexes

By Forrest Cooper, MAcOM, DAOM, LAc, Dipl OM (NCCAOM)

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Abstract

Objective: To investigate the differences between the sexes among superusers (AOM patients who were treated 100+ times in clinics of an Oriental medical college).

Methods: A chart review was conducted of all patients who were seen 100+ times at the student clinics of an acupuncture and Oriental medicine college. Data were collected from the patients' charts regarding sex, age, income, duration of treatment, total treatments, type of clinic accessed, and chief complaint at the first treatment. These data were then analyzed to determine if there was a difference between the sexes in any of these domains.

Results: There was no statistically significant difference between the sexes regarding age or the number or frequency of treatments. A total of 67 women and 17 men utilized the college clinic as superusers. Men had statistically significant lower mean income: females \$21,862, males \$11,823 p=0.01. Females were statically more likely to access clinics other than the standard intern clinic. The women received a total of 10,609 (81.4%) treatments and the men received a total of 2,424 treatments. The difference between male and female usage in each of the different clinics was statistically significant: intern clinic p=0, herbal p=0, doctoral p=0.002, group treatment clinic p=0, bodywork p=0. Males were more likely to report pain as the chief complaint at the first treatment. Fourteen (82.4%) men reported pain as the chief complaint. Thirty-six (53.7%) women reported pain as the chief complaint (p=0.03).

Conclusions: Future research questions should address the disparity between female and male superusers in terms of income, clinic types accessed, and chief complaint reported. These preliminary findings suggest that further research is needed to understand why males overwhelmingly report seeking treatment for only pain related conditions. Male patients should be better educated as to their options for other modalities of treatment as well, and it would be valuable to explore male perceptions of other available treatment modalities.

Key Words: demography, acupuncture, sex differences, pain perception, income

"In addition to the availability and efficacy of the medicine, understanding the characteristics of those who access the modality helps us determine some of the reasons for the increase in acupuncture use."

Background

Since 1993, acupuncture use has increased substantially in the United States. 1-7 The earliest surveys, performed in 1997 by Eisenberg et al., found that 0.4% of the American population accessed acupuncture. By 2007, analysis of the National Health Interview Survey showed that the percentage had risen to 1.4% or 3,141,000 users. Use of acupuncture has grown such that the National Center for Complementary and Alternative Medicine (NCCAM) strategic plan for 2011-2015 has prioritized the need to "increase understanding of 'real world' patterns of outcomes and complementary and alternative medicine (CAM) use, and its integration into health care and health promotion. "9 Two of the specific aims to increase this understanding are "support survey and epidemiological research" and "develop research using observational, outcomes, health services, and effectiveness research."

One possible reason for the increased use of acupuncture by the American public is the increase in availability. Between 1976, when licensure laws were first passed, and 2011, the number of licenses issued in the 24 states reporting licensure numbers rose steadily and consistently from 0 to 29,970. Another possibility is that meta-analyses of experimental data have demonstrated the effectiveness of acupuncture on a broad variety of conditions, including chronic osteoarthritis, menopausal syndrome, and post-stroke sequelae. This increase in the evidence base may be driving the growth in usage.

In addition to the availability and efficacy of the medicine, understanding the characteristics of those who access the modality helps us determine some of the reasons for the increase in acupuncture use. One way to understand this increase is to investigate the demographics and patterns of usage by high frequency users (superusers): patients who have sought one hundred or more treatments. Understanding these patients' characteristics should allow practitioners, policy makers, and healthcare institutions to develop better treatment planning, policies, and marketing regarding these superusers as well as the general public.

In this study, demographic, symptomatic, syndrome information, and types of treatment sought are presented about patients who received one hundred or more treatments at the teaching clinic of the Oregon College of Oriental Medicine (OCOM), a leading acupuncture and Oriental medicine (AOM) college located in Portland, Oregon.

Methods

Clinic Setting: The Oregon College of Oriental Medicine's intern clinic provides on average 12,000 treatments per year and treats approximately 600 new patients per year. Slightly more than one-third of these patients have never had acupuncture before. All students are supervised by an experienced clinician. As with all clinic patients, the patients who participated in this research project signed an informed consent that allowed their anonymized data to be used for research. Approval for the use of patient data was obtained from OCOM's Institutional Review Board.

Patient Selection: A variety of methods were used to identify patients who had been to OCOM acupuncture and herbal teaching clinics for at least one hundred treatments. First, the electronic medical billing system Medisoft was consulted. Second, patient charts that were multiple volumes were visually inspected to determine the number of treatments those patients had received. Finally, charts previously removed for secure, off-campus storage were retrieved and inspected to determine the number of treatments received.

Patients were included if they had received one hundred treatments at OCOM by August 6, 2012. Patients were excluded if 1) they were students or staff of the college, 2) the patient had not had a treatment since August 6, 2002, or 3) the chart was missing pages or volumes.

Data Collection: Three master's student candidates in their final year of school performed data abstraction and entry. They received credit for the required Oriental Medicine Research Project course. A template was developed on SurveyMonkey™, and the students were trained to abstract and enter data consistently for all patients. Accuracy of the students' work was reviewed for the first three patients they entered and subsequently spot-checked.

From the patients' initial visit, the following demographic data were included in the SurveyMonkeyTM template: sex, age, the date of the first treatment, the income as listed by the patient or the income code used to determine the cost of treatment. The type of clinic accessed, the patients' chief complaint, and their syndrome identification in the AOM diagnosis were recorded. Data were also collected pertaining to the total number of treatments and the number of each type of clinic accessed as well as the date of the last treatment (as of August 6, 2012).

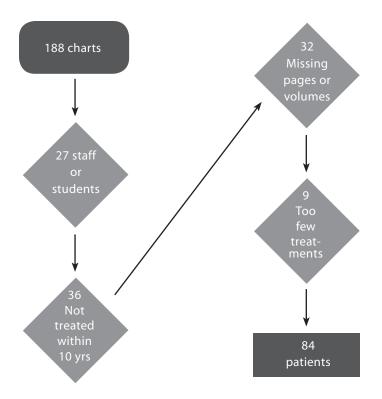
Data Analysis: From these data, several demographic variables regarding these superusers were analyzed. These included their ages, income, and chief complaints. Duration of treatment was calculated in weeks, using the dates of the first treatment and the most recent treatment. Also calculated was how many weeks passed between the first treatment and the one hundredth. From these, the average number of treatments per year was calculated.

Total numbers of treatments and totals for each of the categories of clinics that OCOM offers were compared between the sexes. The T-test was used to compare the income of the sexes. A Pearson's chi-square test was used to analyze differences between the sexes in terms or chief complaint and clinics accessed.

Results

OCOM Data: A total of 188 charts were found for patients who appeared to have been to the OCOM clinic 100+ times. Of these, 27 were excluded because they were students/staff; 36 were excluded because they had not been treated within the last decade; 32 were excluded because their charts were missing pages or volumes; and nine were excluded because they had not received the requisite 100 treatments. A total of 84 charts were fully analyzed. (See Figure 1)

Figure 1 Exclusion Criteria



Of the 84 patients, 17 (20.2%) were male and 67 (79.8%) were female. The mean age of the patients at their first visit was 54.1 years; the median was 55.5 years. The average age of the females in this population was 53.1 years; the median was 53.0 years. The average age of the males in the population was 55.1 years; the median was 56.0 years.

Duration of Treatment: The mean number of weeks for patients regardless of sex to receive 100 treatments was 209.7. The median was 176.1; the range was 47.9- 607.3. For females specifically, the mean was 214.9; the median was 182; the range was 47.9- 607.3. For males, the mean was 189.8; the median was 170.7 weeks; the range was 65.0-439.3. During their first 100 treatments, the patients overall were treated 24.8 times per year; women specifically were treated 24.2 times per year, and men were treated 27.4 times per year.

The mean total duration of treatment for all patients as of 8/6/12 was 316.5 weeks; the median duration was 291.7 weeks; the range was 91.6-829 weeks. For females specifically, the mean duration was 323.2 weeks; the median 290.1 weeks, and the range was 91.6-829 weeks. For men, the mean total duration of 289.9 weeks; the median was 300.4 weeks, and the range was 92.4-556.4 weeks. The start dates ranged from 01/27/1995 to 10/26/2010.

The mean number of total treatments was 155.2; the median was 135; the range was 100-664. For women, the mean number of treatments was 158.3 and the median was 138; the mean number of treatments per year was 25.5. For men, the mean number of treatments was 142.6 and a median of 123; the average number of treatments per year was 25.6.

Income: There was a significant amount of data missing pertaining to income. During the time period that patients commenced treatment, OCOM used a variety of intake forms that asked the patients for their income information. Some of these asked patients to put a checkmark next to a range of incomes (c= \$0-15,000, b= \$15,000-25,000, a= \$25,000 and over or s= senior citizen). These categories were then used to determine how much the patient would pay. Other intake forms asked the patient to fill in their income as a whole number. Other intake forms did not ask for income information at all.

Only 32 of the 84 patients had income data listed. Seven of these patients had the income code "c" or "s" (c= below \$15,000, s= senior), indicating that they paid the lowest rate on the sliding scale in use at that time. No patients had an income code of "a" or "b" listed. Another 25 patients had an income amount listed. The mean income for these 25 patients was \$19,033 (SD \$9,288); the median income was \$19,800; the range was \$5,100-42,000. Eighteen of these 25 were females and seven were males. For females, the mean income was \$21,862 (SD \$8,926); the median was \$19,800; the range was \$5,460-42,000. For males, the mean

was \$11,823 (SD \$5,457); the median was \$12,000; the range was \$5,100-21,000.

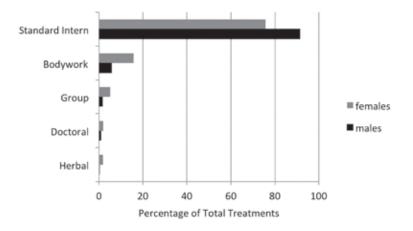
Among the 25 superusers whose income was reported, females had a higher income than males (p=0.01).

Types of Clinics Accessed: The superusers as a whole received a total of 13,033 treatments. Of these treatments, 10,245 (78.6%) were in the master's intern clinic; 1,808 (13.8%) were in the bodywork clinic; 570 (4.4%) were in the group clinic; 227 (1.7%) were in the doctoral clinic; and 183 (1.4%) were seen in an herbal internship clinic.

The women received a total of 10,609 (81.4%) treatments. Eight thousand twenty-nine (75.7%) were in the master's intern clinic and 1,670 (15.7%) were in the body work clinic. Five hundred thirty-one (5.0%) were in the group clinic, 203 (1.9%) were in the doctoral clinic, and 176 (1.7%) were in the herbal clinic.

The men received a total of 2,424 treatments. The master's intern clinic gave 2216 treatments (91.4%), 138 (5.7%) were given in the bodywork clinic, 39 (1.5%) were given in the group clinic, 24 (1.0%) were given in the doctoral clinic, and 7 (0.3%) were given in the herbal clinic. The difference between male and female usage in each of the different clinics was statistically significant: intern clinic p=0, herbal p=0, doctoral p=0.002, group p=0, bodywork p=0. (See Figure 2)

Figure 2 Percentage of Different Types of Clinics Accessed by Each Sex



Conditions Treated: The types of conditions reported by all patients at their initial treatment were most often related to pain 50 (59.5%). Fourteen (82.4%) men reported pain as their chief complaint. Thirty-six (53.7%) women reported pain as their chief complaint. There was a statistically significant difference (p=0.03) between the number of men reporting pain as their chief complaint and women reporting this. The conditions reported and numbers and percentages of patients reporting each condition are summarized in Table 1

Table 1 Conditions Treated

Condition	Female	Male
All pain (including musculoskeletal pain, head ache and neuropathy)	36 (57.3%)	14 (82.4%)
Mental emotional (including stress and anxiety	4 (6.0%)	2 (11.8%)
Respiratory conditions (including asthma, frequent colds, flu, etc)	4 (6.0%)	1 (5.9%)
Fatigue? weakness	4 (6.0%)	
Digestive issues (including constipation, food intolerances, etc)	4 (6.0%)	
Women's health (including PMS, uterine fibroids, and ovarian cysts)	3 (4.5%)	
Other or none listed	12 (17.9%)	

Among the 12 reports of "other" were: "going through life," dizziness, dementia, tinnitus, kidney support, frequent urination, heart palpitations, arm paralysis, stopping smoking, lupus, skin eruptions, and "wanting a tune up."

Discussion

Superusers were consistent in the number of visits per year they made to the OCOM clinics. They accessed the clinic an average of 24.8 times per year, only slightly different from the number of visits, 25.5 per year, for their total duration. The difference between men and women was marginal.

The mean income of \$19,800 indicates that the superusers are low income, which could suggest that they may be lacking access to other types of health care. It could also indicate that the superusers simply find AOM to be a cost effective means of being treated or that they enjoy their treatments.

This level of income may have been skewed by the exclusion criteria. However, given that students were largest group excluded, it is likely that cohort's incomes would have been lower had the students been included because they have generally low to no income. This low income may be a regional factor specific to Oregon or the Northwest; however, that analysis does not fall within the scope of this study.

Differences in income levels between men and women were statistically significant, with men earning less than women. This difference is contrary to the fact that men generally earn more than women in the United States. This is not explained by any age difference. The mean age of the women reporting a specific income was 50.4 years while the mean age of the men reporting an income was 48.7. There is no indication from the men's chief complaints that their conditions were particularly debilitating and would necessitate being on disability.

Distribution of the total number of treatments in each clinic type may have been skewed by the fact that certain individual superusers accessed a particular type of clinic far more than other types of clinics, and more than other patients who used that type of clinic. The top three users of the herbal internship clinic accounted for 129 (70.5%) out of the 183 visits by superusers. The top three users of the group clinic accounted for 359 (67.6%) out of the 507 superuser visits. The top three users of the doctoral internship accounted for 104 (45.8%) of the 227 superuser visits. The top three users of the bodywork clinics accounted for 627 (37.4%) of the 1808 superuser treatments.

The fact that men were less likely to access the group and herbal clinics seems to be contrary to the fact that men were less well off financially. These two types of clinics cost substantially less than the other three types. Furthermore, the bodywork clinics specifically target the men's main chief complaint, pain, so it might be expected that men would be more likely to access the bodywork clinics.

This could indicate a number of different possibilities. One possible explanation is that men were less well informed as to the various options available and the different modalities' potential benefits. Another possible reason is that men want a more traditional one on one experience with a practitioner rather than a more public experience with multiple practitioners and/ or patients in the room. Another possibility is that men do not believe that AOM is effective at treating conditions other than pain.

The fact that female superusers were significantly less likely to seek treatment for pain is particularly striking. Recent studies have found that women are more likely to report pain. Some studies report that women report higher levels of pain while others found that there was no difference between sexes in severity of pain reported. 15 While it might be expected that women would be more likely to report reproductive issues, it is surprising that more men did not report respiratory, urogenital, digestive, fatigue/ energy or mental/emotional issues. It could be, however, that men are more comfortable reporting pain than other conditions.

Limitations of the Data: These results may not be generalizable to other institutions. Factors that may limit generalizability include, missing financial data, the region the school is located in, and the fact that the setting is an AOM college clinic.

Conclusions

The frequency of treatment by superusers was consistent throughout the course of their treatment, varying little after reaching the 100 treatment mark. Policies limiting the number of treatments for patients should be reconsidered.

More education for male superusers might focus on increasing their awareness of different treatment modalities and the opportunities for improved results from those modalities. Systems may need to be put in place that allow men to feel more comfortable with receiving these modalities; however, further research which focuses on this discrepancy is necessary. A significant outreach program for males should be developed so that men begin to access AOM for issues other than pain.

This project suggests that superusers should be more thoroughly studied. This may lead to better understanding of the nature of and treatments for chronic diseases. In addition, knowing more about superusers will allow acupuncturists to deliver better outcomes and allow policy makers to develop guidelines that can better serve this unique group of patients.

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Huang Di Nei Jing in the Curriculum of ACAOM-Accredited Schools: A Survey

By Philip G. Garrison, DAOM

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Abstract

Objective: The *Huang Di Nei Jing* has long been regarded as the seminal classic of East Asian medicine, but only 51% of accredited East Asian medicine programs in the United States specifically mention the *Huang Di Nei Jing* in the course descriptions found in their online program catalogs. The study sought to provide a foundation of ten key chapters in the *Nei Jing* that could be used by schools to supplement their current curricula.

Methods: To achieve this end, a survey was utilized to gather feedback from current classroom teachers at ACAOM-accredited schools in the United States that teach the text. Each was asked to identify what they believed to be the ten most important chapters for master's level students.

Results: Twenty-five potential schools were identified and contacted, and 19 provided contact information for the appropriate teacher. Of the 19 teachers surveyed, eight provided a full response, three abstained because they objected to the wording of the question, and one abstained because they were a new teacher and felt unqualified to answer. This yielded a total response rate of 64%.

Conclusion: More than 80% of the chapters selected were from the *Su Wen* portion of the text, and ten of these chapters generated three or more responses. The data presented in this paper are the first step toward the creation of a practical, consensus-based *Nei Jing* curriculum.

Key Words: traditional Chinese medicine (TCM), *Huang Di Nei Jing*, curriculum design, pedagogy, East Asian medicine

Huang Di Nei Jing (the Nei Jing) is the seed text that sets forth the theoretical, philosophical, and clinical foundation of Chinese medicine. Still, many schools in this field place only a minor emphasis on the Nei Jing, despite the fact that it has been cited frequently by the majority of required state and national board textbooks. Unfortunately, these citations are often brief and divorced from the larger theme of the chapter from which they were taken. As such, many students can quote famous lines from the text, such as "the wind is the origin

of the one hundred diseases,"⁶ but cannot cite the chapter from which it came or the greater theme of the chapter. In the case of this example, the quote comes from *Nei Jing Su Wen* chapter 3, which, broadly summarized, focuses on yin-yang and its relationship to the triad of heaven-humanity-earth: specifically with regard to the maintenance of health and prevention of disease. Taken in the context of *Su Wen* chapter 3, the quote is part of a broader discussion on prevention of disease, which is far more clinically relevant than the quote in its excerpted form.

As many schools transition from master's level programs toward the first professional doctorate (FPD), this new FPD and the current doctorate of acupuncture and Oriental medicine (DAOM) program will continue to evolve, so the opportunity for a fresh review of school curricula presents itself. According to the current accreditation standards, FPD programs must meet all master's level competencies. A basic familiarity with the *Huang Di Nei Jing* is directly relevant to two of the master's level competencies—as defined by the Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM)—and therefore to the FPD as well. More specifically, these two competencies are: "collecting data and using...examinations of the patient in order to be able to make a diagnosis," and "formulating a diagnosis by classifying the data collected and organizing it according to traditional Oriental medicine theories of physiology and pathology."

At the time this study commenced, only 51% of accredited master's programs in East Asian medicine—a term that includes the medical traditions of China, Japan, Korea, and Vietnam—specifically mentioned the *Nei Jing* in the course descriptions found in their program catalogs.² The study sought to determine the capacity to which the *Nei Jing* is taught at these schools and to identify the most important chapters for master's level students.

Methods

The present study utilized a systematic review of the online course catalogs of accredited master's level programs of East Asian medicine in conjunction with a survey, so that the results could be more confidently applied to curriculum design for the *Nèi Jing*. Sources of data therefore included online course catalogs of ACAOM-accredited master's programs and feedback from experienced classroom teachers of the *Nèi Jing*.

The purpose of the study was to survey ACAOM-accredited schools to determine the answers to the following questions:

1. Which schools teach the *Nei Jing* as part of their curriculum?

2. In what capacity is the *Nei Jing* being taught? 3. Who are the teachers at these schools? 4. What are the most important chapters in the text?

"At the time this study commenced, only 51% of accredited master's programs in East Asian medicine—a term that includes the medical traditions of China, Japan, Korea, and Vietnam—specifically mentioned the *Nei Jing* in the course descriptions found in their program catalogs.²"

Question 1 served to determine the school eligible for participation. Question 2 defined the capacity in which the *Nei Jing* was taught at each eligible school. Question 3 determined the teachers who would be surveyed. Question 4 sought to determine the most important chapters in the text as defined by the "subject matter experts" (in this case defined as current classroom teachers of the *Nei Jing*).

This data was collected by checking the program catalogs of each accredited U.S. school of East Asian medicine as of January, 2013.² The data collected from these online course catalogs were put into a spreadsheet of eligible schools, along with the phone number for each school's administrative office. In this way, preliminary investigations revealed the answer to the first question.

Data for the second question were gathered and tabulated concurrently with the first question. The name of each eligible school and the type of class taught (required, elective, or other) were collected from online program catalogs. The category designated "other" included survey classes, theory classes, or historical classes that specifically mentioned the *Nei Jing* in the course description. This data provided important insights into the capacity in which the *Nei Jing* was being taught at accredited schools of East Asian medicine. In the case of schools with multiple campuses, priority was given to the original campus. This provision was necessary to avoid skewing the data with multiple responses from different campuses of the same schools, since they likely use a common syllabus and/or share common academic goals as dictated by the administration.

The third question was answered by contacting the academic dean and/or registrar at these schools and requesting the contact information for the teachers of their *Nei Jing* classes. In the cases of schools that offered both a survey class and either a required *Nei Jing* class or a *Nei Jing* elective, the teachers of the required or elective classes were chosen. Initial contact was made with the eligible teachers via email, and they were asked to participate in the project. A copy of the research goals and purpose of the study was sent along with the research question. Participants were asked to identify the ten most important chapters in the *Nei*

Jing for master's level TCM students (question 4 above). To make the process as efficient as possible, a statement indicating that an email response would serve as written consent was included. Email responses from eligible teachers regarding the most relevant chapters were put into a spreadsheet for statistical analysis.

Results

Out of 49 accredited master's programs, 25 schools were eligible for participation in the study, meaning that 51% all accredited master's programs in the United States mention the *Nei Jing* in the course description of at least one class in their online program catalog. (Figure 1). This percentage drops to 10% if the inclusion criteria had been limited to only those schools that teach the *Nei Jing* as a required part of their master's program (Figure 2). Of the eligible schools, the overwhelming majority of them (68%) teach the *Nei Jing* as part of a broader class (Figure 3). In the graphical representations that follow, these broader classes are identified as "other." The remaining schools teach the *Nei Jing* either as a required class or as an elective.

From a total pool of 25 eligible schools, 19 provided contact information for the appropriate teachers. Of the 19 teachers surveyed, eight provided a full response, three abstained because they objected to the wording of the question, and one abstained because they were a new teacher and felt unqualified to answer. For purposes of anonymity, the answers to question 3 have been withheld. The total response rate was 63% (12 responses out of 19 subject contacts). Similar to the course offerings at all eligible schools, the majority of the participating schools (58%) also teach the *Nei Jing* as part of a broader class (Figure 4).

There was a strong consensus amongst those teachers who participated in the research. After the initial survey, a consensus had already been reached about the 10 most important chapters (Figure 5). Of all chapters mentioned, more than 80% were from the *Su Wen* portion of the text (Figure 6). In addition, the following 11 chapters received two votes each: *Su Wen* chapters 3, 12, 17, 18, 62, 74, 77, and 78; and *Ling Shu* chapters 9, 10, and 18. A follow-up survey was sent to achieve further consensus on these 11 chapters, but only one subject responded.

Figure 1 is a graphical representation of the accredited schools that mention the *Nei Jing* in the course description of at least one class in their online program catalog. The data presented relates to research question #1.

Figure 1 Breakdown of All Accredited Master's Programs in the United States

Total Accredited Schools

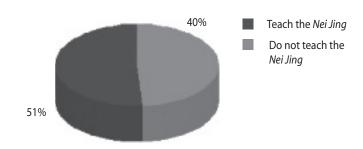


Figure 2 shows the representation of the schools that teach the *Nei Jing* as a program requirement. The data presented relates to research question #2. As the data suggests, only 10% of all accredited schools of American schools of East Asian medicine teach the *Nei Jing* as a required part of their program.

Figure 2 Schools Teaching the Nei Jing as a Requirement

Total Accredited Schools

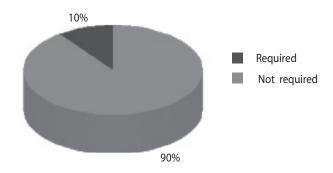


Figure 3 shows the data gathered with regard to research question #2. This chart presents the type of *Nei Jing* class being taught at all eligible schools.

Figure 3 Type of Nei Jing Class Offered at All Eligible Schools

Class Type at Eligible Schools

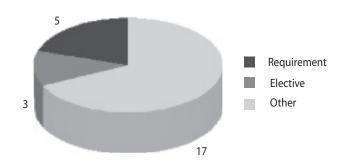


Figure 4 shows the data gathered with regard to research question #2. This chart presents the type of Nei Jing class being taught at the participating schools.

Figure 4 Type of Nei Jing Class Offered at Participating Schools



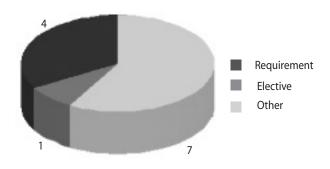


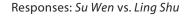
Figure 5 is based on the responses to research question #4. This table represents the ten most important Nei Jing chapters as chosen by the teachers surveyed.

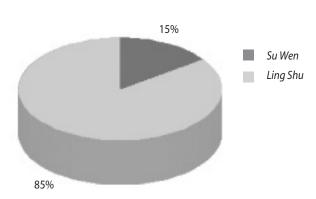
Figure 5 Most Popular Nei Jing Chapters

Chapter	Number of Votes
Su Wen Chapter 1	8
Su Wen Chapter 2	6
Su Wen Chapter 4	3
Su Wen Chapter 5	7
Su Wen Chapter 6	3
Su Wen Chapter 8	4
Su Wen Chapter 9	4
Su Wen Chapter 10	3
Su Wen Chapter 11	3
Su Wen Chapter 21	3

Figure 6 indicates the prevalence of Su Wen versus Ling Shu chapters selected by the teachers surveyed. This chart is based on all the chapters mentioned by the teachers surveyed, not just the most popular.

Figure 6 Total Su Wen vs. Total Ling Shu Chapter Votes





Discussion

It is not the author's intention to replace current curricula but rather to supplement the foundational knowledge being taught at these schools as defined by current ACAOM standards. Historically, knowledge of the Chinese medical classics was a prerequisite to the practice of Chinese medicine. In modern times, however, most accredited schools do not include a dedicated course on the Huang Di Nei Jing as part of their master's program—even though the text includes a variety of topics that directly relate to current ACAOM-defined competencies.7,8

The present study sought to address this situation by determining the capacity to which the Nei Jing is being taught in ACAOMaccredited master's programs as defined by their online program catalogs. Participation in the study was limited to only those individuals having real-world teaching experience with the text, so the data that was gathered have immediate practical application for schools interested in adding a Nei Jing class to their program, or for schools wishing to supplement their existing curricula with specific Nei Jing chapters.

One of the primary research findings was the remarkable coherence of the answers. In a book with 162 chapters, it is astounding that ten of them received three or more votes from a pool of only eight respondents! The clear conclusion from this finding is that these ten chapters include the most important foundational concepts for students of East Asian medicine in the minds of those surveyed.

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Post-Traumatic Stress Disorder Treated with Traditional Chinese Medicine: A Case Report

By Hoon B. Lee, MSOM, LAc

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Abstract

Background: Post-traumatic stress disorder (PTSD) is an anxiety disorder caused by memories of a traumatic event. Approximately 8% of the adult population is affected by PTSD in the United States. Its pharmacotherapy sometimes can lead to drug addiction and/or dependency with no cure in sight.

Case Description: In this single case study, a 23-year-old female patient developed PTSD after she was mentally and physically abused by her boyfriend. For two years she was treated with Ativan (lorazepam) but she became addicted to the drug. To release herself from the addiction, under the direction of her medical doctor, she stopped taking Ativan and instead was prescribed Paxil (paroxetine hydrochloride) for anxiety and Inderal (propranolol hydrochloride) for palpitations. However, Paxil and Inderal not only did little to alleviate her symptoms but also deteriorated her constitution further. Eventually, due to severe anxiety, headache, and nausea, she could not work or attend school for about six months.

Methods: The patient received seven treatments with acupuncture, moxibustion, and herbal medicine for five weeks, twice per week over the first two week period and once a week from the third week. The combination of acupoints selected varied from treatment to treatment based on the intake assessment before each treatment. Under the care by her medical doctor, pharmacotherapy was gradually phased out as the patient's condition improved.

Results: At the end of the traditional Chinese medical treatments, the patient became well enough to get a job and go back to school.

Conclusions: Traditional Chinese medical treatments may be a good alternative when pharmacotherapy fails to treat a PTSD patient.

Key Words: post-traumatic stress syndrome, acupuncture, moxibustion, herbal medicine

Introduction/Background - BIOMED

Post-traumatic stress disorder (PTSD) is an anxiety disorder caused by memories of a traumatic event. Symptoms frequently occur several months after the event and may include vivid nightmares, re-experiencing the event as if it were happening again, or intense distress when confronted with reminders of the trauma.¹ Diagnostic criteria for PTSD are: the person has been exposed to a traumatic event; the traumatic event is persistently re-experienced; persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness; persistent symptoms of increased arousal; duration of the disturbance is more than one month; the disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.2

Approximately 8% of the adult population is affected by PTSD in the United States.² PTSD is associated with mental disorders, such as major depressive disorder, substance-related disorders, panic disorder, agoraphobia, obsessive-compulsive disorder, generalized anxiety disorder, social phobia, specific phobia, and bipolar disorder. These disorders can precede, follow, or emerge concurrently with the onset of PTSD.2

PTSD patients also commonly complain about chronic pain, such as back pain, headaches, and neuropathic pain.³ Selected serotonin reuptake inhibitors, (i.e., Food and Drug Administration approved sertraline and paroxetine), with limited efficacy in treating pain, and serotonin-norepinephrine reuptake inhibitors (i.e., venlafaxine) can be used for pain management as the firstline pharmacotherapy to treat PTSD.3 However, research shows that the treatment of PTSD and chronic pain has been "off-label" and driven by clinicians' judgment based on treated patients' symptoms.³ Also, PTSD symptoms and drug responses differ across individuals.4

Cognitive behavioral therapies such as group-delivered cognitive therapy,⁵ virtual reality exposure therapy,⁶ and eye movement desensitization and reprocessing therapy have shown some efficacy in treating PTSD in clinical trials.

Introduction/Background - AOM

In traditional Chinese medicine (TCM), PTSD belongs to the shen disturbance category, and there can be many possible different patterns of PTSD depending on a patient's constitution at the time of treatment.^{8,9} Most of the clinical studies on treating PTSD have been about acupuncture treatment. Acupuncture point selection varies depending on the pattern differentiation. One published study lists the primary patterns as Heart shen

disturbances, Liver qi stagnation, and Kidney deficiency with 12 secondary patterns as shown in Table 1, which also includes sample acupuncture points to treat each pattern.¹⁰

Table 1

Primary/ Secondary	Pattern	Acupuncture points	
	Heart shen disturbances	Zusanli ST-36, Sanyinjiao SP-6, Jueyinshu BL-14, Xinshu BL-15	
Primary	Liver <i>qi</i> stagnation	Shenmen HT-7, Neiguan PC-6, Yintang M-HN-3, Fengchi GB-20, Ganshu BL-18	
	Kidney deficiency	Taichong LV-3, Neiguan PC-6, Shenshu BL-23	
	Liver overacting on Spleen	Zhangmen LV-13, Ganshu BL-18, Pishu BL-20	
	Liver overacting on Stomach	Qimen LV-14, Ganshu BL-18, Weishu BL-21	
	Stomach fire	Neiting ST-44, Dazhui GV-14, Weishu BL-21	
	Liver fire	Xingjian LV-2, Dazhui GV-14, Ganshu BL-18	
	Phlegm heat	Fenglong ST-40, Dazhui GV-14, Weishu BL-21	
	Phlegm damp	Yinlingquan SP-9, Pishu BL-20	
Secondary	Heart <i>yin</i> /blood deficiency	Yinxi HT-6, Geshu BL-17, Xinshu BL-15	
	Spleen <i>qi/yang</i> deficiency	Taibai SP-3, Pishu BL-20, Shenshu BL-23	
	Kidney <i>yang/</i> essence deficiency	Zhaohai KD-6, Zhishi BL-52, Shenshu BL-23	
	Kidney <i>yang/qi</i> deficiency	Fuliu KD-7, Mingmen GV-4, Shenshu BL-23	
	Liver <i>yin</i> /blood deficiency	Ququan LV-8, Shenshu BL-17, Ganshu BL-18	
	Stomach <i>yin</i> deficiency	Neiting ST-44, Weishu BL-21	

Some clinical studies suggest that acupuncture is very effective in treating PTSD patients. One study assessed the efficacy and safety of electro-acupuncture in 138 patients with earthquake-caused PTSD using randomized controlled trials. One hundred thirty-eight patients were randomly divided into an electro-acupuncture group and a paroxetine group. The electro-acupuncture group was treated by scalp electro-acupuncture on Baihui GV-20, Sishencong M-HN-1, Shenting GV-24, and Fengchi GB-20, and the paroxetine group was treated with simple oral administration of paroxetine.

The acupoints, which are generally used to calm the shen, were selected based on TCM diagnosis of PTSD as shen disturbance ("emotional diseases" or "depression"). The electro-acupuncture

group was treated with continuous wave of 100 Hz for 30 minutes each time every other day and continuously treated up to 12 weeks. The study outcome suggests that both groups have significantly improved in PTSD, but the electro-acupuncture group improved more significantly.¹¹

Another study compared the efficacy of the cognitive-behavior therapy only and the cognitive-behavior therapy and acupoint stimulation on the earthquake-caused PTSD. Each patient in the control group was treated using the cognitive-behavior therapy alone for 30 minutes each time every other day. For the treatment group, both the cognitive-behavior therapy and acupoint stimulation were used. For acupoint stimulation, a 50 Hz electricity was applied to the left Laogong PC-8 for 30 minutes a time every other day. This point was selected because of its effectiveness in treating precordial pain, vexation, vomiting, and coma. The study results suggest that the treatment group significantly improved better than the control group.¹²

One case report shows that a scalp acupuncture treatment protocol was effective in treating PTSD by application of electric stimulation in two areas. In stimulation area one, one acupuncture needle inserts from Yintang M-HN-3 toward Shenting DU-24 and Shangxing DU-23, and another needle inserts from Shangxing DU-23 penetrating Shangxing DU-24 toward Yintang M-HN-3. These two needles were then attached to electric wires with high frequency continuous electric pulse delivered from an electric device. In stimulation area two, one acupuncture needle inserts from Taiyang M-HN-9 toward Shuaigu GB-8 and Tianchong GB-9, and another needle inserts from Tianchong GB-9 penetrating Shuaigu GB-8 toward Taiyang M-HN-9. These two needles were then attached to electric wires with high-frequency continuous electric pulse delivered from the electric device. These acupoints were selected according to TCM theory and ancient classic acupuncture literature to calm the shen.

The first case involved a 70-year-old male with general anxiety disorder and panic attacks during the night. The treatment protocol was applied for 45 minutes once every week. After four sessions of acupuncture treatments, the patient reported he no longer had panic attacks at night and he had no feelings of anxiety during the day. Four weeks later, follow-up confirmed that he still did not have these issues. The second case involved a 35-year-old male diagnosed with PTSD. During his time in battle in Iraq, he also experienced 21 broken bones and multiple concussions. He had symptoms of severe anxiety, nightmares with flashbacks, insomnia, irritability, and bad temper. He also had chest pain, back pain, and joint pain due to injuries. The above treatment protocol was performed for 30 minutes each time in combination with body acupuncture for pain management. After six sessions of treatments, the patient felt completely recovered from PTSD.¹³

Case History

The patient was a 23-year-old female college student. In 2008, she was referred to this practitioner's clinic by her medical doctor. She had developed post-traumatic stress disorder (PTSD) after being physically and mentally abused by her boyfriend two and a half years prior. Her chief complaints were severe anxiety, headache, and nausea.

For two years she was treated with Ativan (lorazepam) but she became addicted to the drug. To stop the addiction, under the direction of her medical doctor, she discontinued taking Ativan and instead was prescribed Paxil (paroxetine hydrochloride) for anxiety and Inderal (propranolol hydrochloride) for palpitations. However, despite the continued treatment with Paxil and Inderal due to her severe anxiety, headache, and nausea, she could not work or attend school for about six months. Prior to the pharmaceutical treatments, the patient had severe anxiety, insomnia, bouts of over-thinking, worry, and chest pain, and inability to adapt to stress. The Paxil and Inderal not only did little to alleviate her symptoms but also further deteriorated her constitution.

At the time of initial intake, the patient had frequent cramping abdominal pain, cold hands and feet with warm body, thirst, day and night sweats, insomnia, general weakness and low energy (energy level rated at a 3 out of 10), palpitations, anxiety, dry mouth, difficult breathing, acid reflux, abdominal bloating, loose bowel, gurgling noise in the stomach, over-thinking, worry, nausea, heartburn, chest pain, inability to adapt to stress, migraine headaches on both sides of the head, lower back pain, lump in the throat, neck tension, and blurry vision. Her pulse was rapid (100/min), thin, wiry, and slippery on the left side and thin and wiry on the right side with deep and weak *cun* position bilaterally. She had a swollen pale purple tongue with red tip. The tongue coating was yellow, sticky, and greasy. Her blood pressure was normal (110/70).

Diagnostic Assessment

From the Chinese medicine perspective, the disease of the patient can be categorized as *shen* disturbance as explained in the previous clinical studies on PTSD. ^{10,11,13} When the patient was abused by her boyfriend, her *shen* was disturbed and she thus suffered with PTSD. When she took biomedical drugs to treat PTSD these caused a variety of side effects, which had deteriorated her constitution and caused many health issues. This made her *shen* disturbance even worse

Cold hands and feet with warm body, inability to cope with stress, cramping abdominal pain, purplish tongue, and wiry pulse indicated Liver *qi* stagnation. General weakness and low energy, abdominal bloating, loose bowel, and over-thinking and worry

indicated Spleen qi deficiency. Difficult breathing, day-time sweating, and weak pulse at the right cun position indicated Lung qi deficiency. Night sweating, dry mouth, and backache indicated Kidney yin deficiency. Warm body, night and day time sweating, dry mouth, rapid pulse, and sticky yellow coating indicated damp heat. Palpitations, anxiety, pale tongue, and weak pulse at the left cun position indicated Heart blood and qi deficiency. Migraine headaches, insomnia, stiff neck, and blurry eyes indicated Liver yang rising. Nausea, swollen yellow greasy tongue, and slippery pulse indicated phlegm damp obstruction. Palpitations, mental restlessness, insomnia, anxiety, lower back pain indicated Kidney and Heart disharmony.

Treatment

The patient's medical doctor closely worked with me in monitoring her progress throughout the treatments and adjusted the drug dosage accordingly.

Treatment Strategies: Treat shen disturbance along with drug side effects using acupuncture, moxibustion, and herbal medicine. When shen disturbance is reduced, reduce the drug dosage to reduce the drug side effects, which in return will reduce shen disturbance.

Treatment Principles: Calm the shen and reduce anxiety; tonify yin and clear damp heat to reduce sweating and dry mouth; tonify original qi to tonify Spleen qi, reduce phlegm damp, reduce day time sweating, and tonify Heart Blood; course the Liver qi and harmonize Kidney and Heart to recover normal body functions.

Table 2*

Point	Action	Method of Stimulation
Shaohai HT-03	Calms the shen, transforms phlegm, and clears heat	Tonifying
Shenmen HT-07	Calms the shen, regulates and tonifies the Heart	Tonifying
Shaofu HT-08	Clears heat from the Heart, calms the <i>shen</i> , and regulates Heart <i>qi</i>	Reducing
Yintang M-HN-03	Pacifies wind and calms the shen	Even
Taichong LV-03	Spreads Liver <i>qi</i> , subdues Liver yang and extinguishes wind, nourishes Liver Blood and Liver <i>yin</i> , and clears the head and eyes	Even
Xingjian LV-02	Spreads Liver <i>qi</i> and pacifies Liver wind	Reducing
Sanyinjiao SP-06	Tonifies the Spleen and Stomach, resolves dampness, harmonizes the Liver and tonifies the Kidneys, and calms the <i>shen</i>	Even
Yinlingquan SP-09	Regulates the Spleen and resolves dampness, and opens and moves the water passages.	Even
Fenglong ST-40	Transforms phlegm and dampness, benefits the chest, clears phlegm from the Heart and calms the <i>shen</i>	Even
Taiyuan LU-09	Tonifies the Lung and transforms phlegm, promotes the descending function of the Lung, and regulates and harmonizes the vessels	Tonifying
Taixi KD-03	Nourishes Kidney <i>yin</i> and clears deficiency heat, tonifies Kidney <i>yang</i> , anchors the qi and benefits the Lung, and strengthens the lumber spine	Tonifying
Lingou LV-05	Spreads the Liver and regulates qi , clears dampness and heat from the lower $jiao$, and treats plumstone qi	Even
Gongsun SP-04	Fortifies the Spleen and harmonizes the middle <i>jiao</i> , calms the <i>shen</i> , and benefits the Heart and chest	Even
Yanglingquan GB-34	Benefits the sinews and joints, spread Liver <i>qi</i> and benefits lateral costal region, clears Liver and Gall Bladder damp heat, and harmonizes <i>shaoyang</i>	Even
Zulinqi GB-41	Spreads Liver <i>qi</i> , benefits the chest, lateral costal region and breasts, clears the head and benefits the eyes, and transforms phlegm	Reducing
Hegu LI-04	Regulates the defensive qi and adjusts sweating, and regulates the face, eyes, nose, mouth and ears	Even
Anmian N-HN-54	Calms the shen and pacifies the Liver and treats insomnia	Even
Neiguan PC-06	Unbinds the chest and regulates <i>qi</i> , regulates the Heart and calms the <i>shen</i> , harmonizes the Stomach and alleviates nausea and vomiting, clears heat	Even
Liangqiu ST-34	Relieves diarrhea	Even
Tiantu CV-22	Descends rebellious qi and benefits the throat	Even
Shanzhong CV-17	Regulates <i>qi</i> and unbinds the chest, and descends the rebellion of the Lung and Stomach	Even
Zhongwan CV-12	Harmonizes the middle <i>jiao</i> and descends rebellion, tonifies the Stomach and the Spleen, and regulates <i>qi</i> and alleviates pain	Even
Tianshu ST-25	Regulates Intestines, regulates the Spleen and Stomach, resolves dampess and damp heat, regulates <i>qi</i> and blood and eliminates stagnation	Even
Qihai CV-06	Fosters original <i>qi</i> , tonifies <i>qi</i> , tonifies the Kidneys and tonifies <i>yang</i> , regulates <i>qi</i> and harmonizes blood	Moxibustion
Zusanli ST-36	Harmonizes the Stomach, fortifies the Spleen and resolves dampness, supports the correct <i>qi</i> and fosters the original <i>qi</i> , tonifies <i>qi</i> and nourishes blood and <i>yin</i> , clears fire and calms the <i>shen</i>	Moxibustion
Baihui DU-20	Pacifies wind and subdues <i>yang</i> , benefits the head, and benefits the brain and calms the <i>shen</i>	Moxibustion

^{*}Deadman P, Al-Khafaji M, Baker K. A Manual of Acupuncture. 5th ed. East Sussex, England: Journal of Chinese Medicine Publications; 2001.

Acupuncture Treatment: Seven treatments were applied in total at a frequency of twice per week over the first two week period and once a week from the third week. All points were needled in prone position with 15 minutes retention. The needle gauge was 0.18 mm x 25 mm for all points. All the needles were spring type, manufactured by Mac Co. in China. Hoist Brand smokeless moxa sticks (1.3 cm x 12 cm) made in China were used for "Sparrow-pecking" indirect moxibustion. All the points used during this period are listed in Table 2.

Table 3 shows the combination of acupoints selected varied from treatment to treatment based on the intake assessment before each treatment.

Herbal Treatment: Acupuncture treatment was complemented with an herbal tincture (*Tian Wang Bu Xin Dan* (Celestial Emperor's Blend from Kan Herb Company, Santa Cruz, CA) to nourish *yin* and blood, and harmonize Kidney and Heart and calm the *shen*. The patient started taking 20 drops in hot water per serving two times a day one week after the first visit. The Ingredients of the herbal tincture are *sheng di huang* (Radix Rehmanniae Glutinosae), *dang gui* (Radix Angelicae Sinensis), *dan shen* (Radix Salviae Miltiorrhizae), *dang shen* (Radix Codonopsitis Pilosulae), *fu ling* (Sclerotium Poriae), *bai zi ren* (Semen Zizyphi Spinosae), *yuan zhi* (Radix Polygalae Tenuifoliae), *xuan shen* (Radix Scrophulariae Ningpoensis), *mai men dong* (Tuber Ophiopogonis Japonici), *tian men dong* (Tuber Asparagi Cochinchinensis), *chao suan zao ren* (Semen Zizyphi Spinosae), *wu wei zi* (Fructus Schisandrae Chinensis), and *jie geng* (Radix Platycodi Grandiflori).

Table 3

Treatment	Right Side	Left Side	Mid Line
1	Shenmen HT-07, Shaohai HT-03, Taichong LV-03, Yinlingquan SP-09	Sanyinjiao SP-06, Fenglong ST-40, Taiyuan LU-09, Shaofu HT-08	Yintang M-HN-03
2	Zusanli ST-36, Sanyinjiao SP-06, Anmian N-HN-54, Lingou LV-05, Gongsun SP-04, Neiguan PC-06, Taiyuan LU-09, Liangqiu ST-34, Fenglong ST-40	Zusanli ST-36, Sanyinjiao SP-06, Anmian N-HN-54, Yinlingquan SP-09, Hegu LI-04, Taichong LV-03, Zulinqi GB-41	Yintang M-HN-03, Qihai CV-06
3	Zusanli ST-36, Lingou LV-05, Yanglingquan GB-34, Zulinqi GB-41, Tianshu ST-25, Fenglong ST-40, Sanyinjiao SP-06, Yinlingquan SP-09, Liangqiu ST-34, Taixi KD-03, Gongsun SP-04, Neiguan PC-06, Shenmen HT-07	Zusanli ST-36, Lingou LV-05, Yanglingquan GB-34, Zulinqi GB-41, Tianshu ST-25, Fenglong ST-40, Sanyinjiao SP-06, Yinlingquan SP-09, Liangqiu ST-34, Taiyuan LU-09, Taichong LV-03	Baihui DU-20, Qihai CV-06, Zhongwan CV-12, Shanzhong CV-17, Tiantu CV-22, Yintang M-HN-03
4	Fenglong ST-40, Yinlingquan SP-09, Lingou LV-05, Sanyinjiao SP-06, Anmian N-HN-54, Hegu LI-04, Taichong LV-03	Fenglong ST-40, Yinlingquan SP-09, Lingou LV-05, Sanyinjiao SP-06, Anmian N-HN-54, Gongsun SP-04, Neiguan PC-06, Zulinqi GB-41, Zusanli ST-36, Shenmen HT-07	Baihui DU-20, Tiantu CV-22
5	Fenglong ST-40, Yinlingquan SP-09, Lingou LV-05, Zusanli ST-36, Gongsun SP-04, Sanyinjiao SP-06	Fenglong ST-40, Yinlingquan SP-09, Lingou LV-05, Zusanli ST-36, Shaofu HT-08	Yintang M-HN-03, Baihui DU-20, Tiantu CV-22
6	Gongsun SP-04, Xingjian LV-02, Lingou LV-05	Taichong LV-03, GB-36 Hegu LI-04, Shaofu HT-08, Neiguan PC-06, Sanyinjiao SP-06, Yinlingquan SP-09	Yintang M-HN-03
7	Shaohai HT-03, Gongsun SP-04, Neiguan PC-06, Yinlingquan SP-09	Shaofu HT-08, Fenglong ST-40, Xingjian LV-02, Lingou LV-05	Baihui DU-20, Yintang M-HN-03

"Approximately 8% of the adult population is affected by PTSD in the United States.² PTSD is associated with mental disorders, such as major depressive disorder, substance-related disorders, panic disorder, agoraphobia, obsessive-compulsive disorder, generalized anxiety disorder, social phobia, specific phobia, and bipolar disorder. These disorders can precede, follow, or emerge concurrently with the onset of PTSD.²"

Outcomes/Results and Prognosis

After the first visit, her feet and hands were warmer, day and night time sweating disappeared, and her vision improved. After the second visit, her chest and abdominal issues were resolved, bowel movements became normal, and her energy level improved. Her medical doctor told her to stop taking Inderal (propranolol hydrochloride). After the third visit, her nausea returned but her sleep had improved. Her medical doctor then reduced the daily Paxil (paroxetine hydrochloride) dose from 10 mg to 5 mg. After the fourth visit, all the symptoms had been resolved except for slight headaches during rainy days. After the fifth visit, she still complained about her headache during rainy days but no other symptoms returned. Her medical doctor then took her off of Paxil. After the sixth visit, no symptoms were evident, including her headache. On the seventh visit, the patient indicated no more symptoms. One week after the seventh visit, the patient called to say that she had no symptoms anymore, was jogging every day, got a part-time job, and returned to school.

Some of the symptoms may appear from time to time, so to maintain her mental and physical health she will need to maintain a healthy life style with healthy diet (e.g., avoiding processed foods and fried foods and include fresh fruits and vegetables in her diet) and regular exercises, such as jogging, walking, yoga, and *tai chi*. She was also advised to receive TCM treatments if any symptoms appeared that her body could not regulate by itself.

Discussion/Conclusions

In this single case, a 23-year-old female with PTSD had suffered from drug addiction and drug side effects while receiving pharmacotherapy for two and a half years. It was evident that she was in a perpetual cycle of experiencing mental disorder by taking drugs to treat the mental disorder and then having drug side effects, which negatively affected her mental disorder. The cycle was broken during TCM when the patient was gradually able to reduce the drug dosages. She eventually was able to stop taking the drugs as her symptoms became less with TCM treatments. The patient became symptom-free after receiving seven TCM treatments over a five week period.

Previous studies have shown that acupuncture treatment is very effective for PTSD. Therefore, when other types of treatment fail, TCM can be a good alternative to consider for this condition. Based on this case study, it is recommended that if pharmacotherapy fails to treat PTSD, instead of treating a patient with drugs and TCM simultaneously, drug treatment should be gradually phased out as TCM starts to show positive impact on the patient.

"Previous studies have shown that acupuncture treatment is very effective for PTSD. Therefore, when other types of treatment fail, TCM can be a good alternative to consider for this condition."

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A Guide to Funding from the National Institutes of Health

By Jennifer A. M. Stone, LAc

A 1991 graduate of the Midwest College of Oriental Medicine in Chicago, Illinois, Jennifer A.M. Stone, LAc is an adjunct clinic and research faculty member in the Indiana University School of Medicine, Department of Radiation Oncology. She has participated in NIH-funded research on animal and human subjects. Currently, Jennifer is the co-principal investigator on a cancer study, which is examining the impact of acupuncture on chemotherapy-induced peripheral neuropathy. She maintains a clinic, East West Acupuncture, Inc., in Bloomington, Indiana.

The National Institutes of Health (NIH) manages funding for a variety of biomedical and clinical research projects. For many years, the only office funding acupuncture and Oriental medicine (AOM) research was the National Center for Complementary and Alternative Medicine (NCCAM). Much has changed in the past 25 years. Due to an increased amount of acupuncture research reporting positive findings, additional NIH offices are funding acupuncture research, such as the National Cancer Institute (NCI), the National Institute of Aging (NIA), and the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS).

In 2014, NCCAM changed their name to align with the growing trend of use of the word "integrative." They are now known as the National Center for Complementary and Integrative Health (NCCIH). NCCIH and other NIH offices award funding for many AOM modalities in addition to acupuncture, such as Chinese and western herbs, yoga, meditation, etc.

https://nccih.nih.gov/

What Costs Does an NIH Grant Cover?

Major research institutions get most of their operating capital from federal funding. The research institution is the grantee for most grant awards. The institution houses the funds in their grants account management office. Some awards will pay for a percentage of the principal investigator's salary if they are a paid faculty member of the institution.

Most grants provide funding for both direct and indirect costs. A **direct cost** is any cost that can be easily identified with a specific project (grant/contract): e.g., salaries and wages, materials and supplies, subcontracts, consultants. An **indirect cost** is any cost that cannot be easily identified (or it would not be cost effective to identify) to a specific project, but it is identified with two or more final cost objectives. There are three types of indirect costs:

- Fringe Benefits: services or benefits provided to employees, e.g., health insurance, payroll taxes, pension contribution, paid absences, etc.
- Overhead: indirect costs associated with the performance of a project, e.g., facility costs (rent, heat, electricity, etc.), general laboratory supplies, etc.
- Governance and Administration: indirect costs associated with the overall management of an organization, e.g., the president's office, human resources office, accounting office, and general office supplies

Each institution has its own calculation for indirect costs, and each funding mechanism provides different amounts for indirect costs. At Indiana University, for example, for most research and development grants, the institution receives over 50% for indirect costs. For each \$100K that is awarded for a project, the institution receives an additional \$50K+ to cover indirect costs.

General Award Mechanisms Used by NCCIH and Other NIH Offices:

Research Project Grants:

· R03 Small Grant

This mechanism will support small research projects that can be carried out in a short period of time with limited resources. Example: \$50,000 per year for two years

· R21 Exploratory/Development Grants

These grants are designed to encourage the development of new research activities in categorical program areas, such as pilot studies and feasibility studies, usually for a duration of two years. The combined budget for direct costs for the two year project period usually may not exceed \$275,000.

• R01 Research Project

Following an R21, an investigator might qualify for a 3-5 year R01 to conduct a much larger study in a larger population. There is no cost limit, but special permission is needed for projects costing more than \$500,000 per year.

• R15 Academic Research Enhancement Awards (AREA)

These awards support small-scale research projects conducted by faculty primarily in baccalaureate degree-granting domestic institutions and institutions that are otherwise unlikely to participate extensively in NIH programs in biomedical and behavioral research. Awards are given for up to \$150,000 for direct costs (plus applicable indirect costs) for periods not to exceed 36 months.

• R34 Clinical Trial Planning Grant

These grants are designed to permit early peer review of the rationale for the proposed clinical trial and support development of essential elements of a clinical trial, usually with a budget of up to \$100,000 direct costs, sometimes up to \$450,000, for 1-3 years.

"Major research institutions get most of their operating capital from federal funding. The research institution is the grantee for most grant awards. The institution houses the funds in their grants account management office."

This is a limited list; more information can found at: http://grants.nih.gov/grants/funding/funding_program.htm

Grants for Pre- and Post-Doctoral Individuals

To help fund pre- and post-doctoral student salaries:

- F31 Pre-doctoral Individual: Ruth L. Kirschstein National Research Service Award
- F32 Post-doctoral Individual: Ruth L. Kirschstein National Research Service Award

Career Development and Training Awards

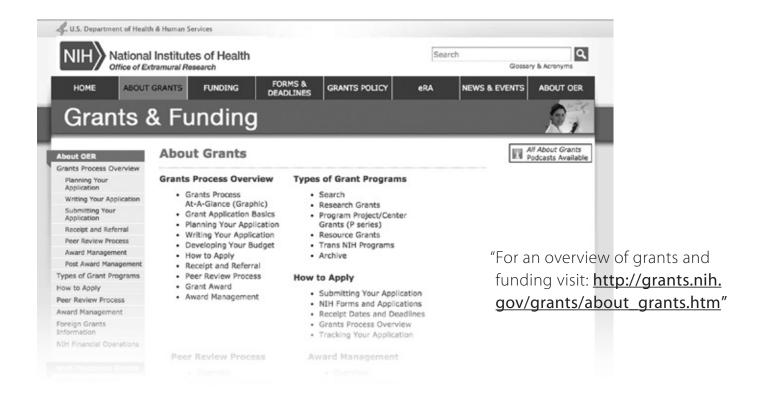
To fund research training for PhDs, DAOMs and faculty:

- K01 Research Scientist Development Award—Research and Training
- K07 Academic/Teacher Award (ATA)
- K08 Clinical Investigator Award (CIA)
- K23 Mentored Patient-Oriented Research Career Development Award
- K24 Midcareer Investigator Award in Patient-Oriented Research
- K99/R00 NIH Pathway to Independence (PI) Award
- T32 Institutional Ruth L. Kirschstein National Research Service Award
- T35 Ruth L. Kirschstein National Research Service Award Short-Term Research Training
- T90/R90 Interdisciplinary Research Training Award/ Interdisciplinary Regular Research Training Award

Conference Awards

To support recipient-sponsored and -directed international, national, or regional meetings, conferences, and workshops:

• R13 Conference (prior approval required)



Small Business Awards

To fund collaborative research and development between small businesses and research institutions (e.g., implement a new computer system in a hospital for medical coding):

- R41 Small Business Technology Transfer (STTR) Grants— Phase I
- R42 Small Business Technology Transfer (STTR) Grants— Phase II
- R43 Small Business Innovation Research Grants (SBIR)— Phase I
- R44 Small Business Innovation Research Grants (SBIR)— Phase II

Active Funding Announcements (PAs, RFAs and RFPs)

An active funding announcement is a publicly available document by which a federal agency makes known its intention to award discretionary grants or cooperative agreements, usually as a result of competition for funds. Funding opportunity announcements may be known as program announcements (PA), requests for applications (RFA), requests for proposals (RFP), notices of funding availability, solicitations, or other names depending on the agency and type of program. Funding opportunity announcements can be found at **Grants.gov/FIND** and in the **NIH Guide for Grants** and **Contracts**.

NCCIH-supported funding opportunities can be found at: https://nccih.nih.gov/grants/funding

Who Is Eligible for an NIH Grant?

Each type of NIH grant program has its own set of eligibility requirements. Applicants can find eligibility information in Section III of each funding opportunity announcement (PA, RFA, RFP). While the principal investigator (PI) conceives and writes the application, NIH recognizes the applicant institution as the grantee for most grant types. In general, domestic or foreign, public or private, non-profit or for-profit organizations are eligible to receive NIH grants.

How to Apply

Most grant applications are submitted through eRA Commons, the electronic Research Administration. http://era.nih.gov/

NIH's eRA systems provide applicants, grantees, and federal staff the tools necessary for electronic processing of grants. Used by NIH, AHRQ, CDC, FDA, SAMHSA and the VA, the eRA Commons and IMPAC II systems support the full grants life cycle from receipt to award to closeout.

The eRA Commons website handles registration for institutions submitting. Grants are submitted through eRA Commons and the progress of the grant is tracked through eRA Commons. The system also tracks the account information of the different funds that each institution is managing. It has instructions and tutorials on registering a new institution and submitting the grant.

General Application Resources

The NCCIH website provides links for general resources, clinical research resources and pre-application events and summaries. They have links to policies, writing tips, deadlines, forms, and more. https://nccih.nih.gov/grants/resources

For an overview of grants and funding visit: http://grants.nih.gov/grants.htm

Additional Recommendations

Collaborate! Team up with researchers who are already NIH funded and therefore know the system. Contact the program officer (PO) for the PA, RFA or RFP before you apply. The PO's contact information is listed at the bottom of the announcement.

Design and conduct a small feasibility study before you apply

for a research grant. The NCCIH wants to see that you can work with the different offices and team members at your institution (researchers, clinicians, research nurses, scientific review committee, IRB, statistics, purchasing, accounting, research coordinators).

Have patience. Most researchers work for several years on other people's research projects before they are awarded their own federal funding for their own project under their own name.

"Design and conduct a small feasibility study before you apply for a research grant. The NCCIH wants to see that you can work with the different offices and team members at your institution (researchers, clinicians, research nurses, scientific review committee, IRB, statistics, purchasing, accounting, research coordinators)."



CLINICAL PEARLS



The topic selected for this issue is:

How Do You Treat Thoracic (Upper & Middle Back) Pain in Your Clinic?

The term thoracic pain is a broad one that envelops a variety of diagnoses and conditions. In general, thoracic back pain is pain located around or near thoracic vertebrae T-1 through T-12. It occurs less frequently than cervical or lumbar pain and thus has not been as carefully studied. Thoracic back pain is more often due to serious spinal pathology than is neck or low back pain, but thoracic back pain is also prevalent among healthy individuals without any serious underlying cause.¹

Local trauma, such as a fall or direct hit, can trigger thoracic pain. Spinal conditions that include but are not limited to vertebral subluxation, arthritis, or degenerative disc can also trigger thoracic pain. Referred pain, which originates further from the epicenter, can send pain towards the mid-back and can be related to muscular imbalance. Other referred pain may come from internal disorders, such as those of a visceral nature.

In traditional Chinese medicine, thoracic pain typically corresponds to some imbalance of the UB channel. The diagnosis of qi and blood stagnation covers a few of the external conditions that a practitioner would see in the clinic. The internal conditions leading to thoracic pain could be more complex and thus require deeper insight. Depending on the root cause, proper treatment can be a combination of herbal formulas and topical liniments. In any case, a thorough patient history is recommended to capture a good idea of what is truly happening.

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How do You Treat Thoracic (Upper or Middle) Back Pain in Your Clinic?

By Greg Golden, MSOM, LAc, DiplOM (NCCAOM)

Greg Golden, MSOM, DiplOM (NCCAOM), LAc has been practicing in Indianapolis, Indiana, since 2011. He completed his master's level training at the National University of Health Sciences in Lombard, Illinois, and has studied with Dr. Richard Tan, the originator of the balance method. Greg is currently in pursuit of a clinical doctoral degree in acupuncture and Oriental medicine at the Oregon College of Oriental Medicine. He can be reached at greggolden11@gmail.com or by visiting his website, www.NaturalGoldenEnergy.com

When treating thoracic pain, I frequently utilize the balance method of Dr. Richard Tan. Some of the advantages of this method are that only distal points are used, so the treatment can be done in a sitting or reclined position. This is helpful if it is difficult for the patient to get on a treatment table or for treatments done in a community setting. Also, since the patient can move their torso once the treatment is in progress, the practitioner can determine if immediate relief has been attained.

To use this balance method for thoracic pain, I first determine what Dr. Tan refers to as an "acupuncture diagnosis." This is simply determining which meridians are involved. Most of the time with mid-back pain, the primary affected meridian will be the BL channel. In the balance method there are six different balance systems for each meridian, but yang meridians are only ever balanced by four other channels. Meridians that balance the BL channel are the SI, LU, KD, and BL channels.

The specific methodology employed for this treatment is called the *image* method. I think of the distal area of the arm or leg representing an image of the torso, with the foot or hand representing the head. I palpate along the SI and LU channels of the arm as well as the KD and BL channels of the leg. Since the thoracic region is the middle of the back, ashi points along the corresponding middle regions of the arm and/or leg should be found. Less is more, so I needle only what is needed. I start with only one meridian and needle the ashi points. Pain should be reduced immediately. Pain may also move up, down, or to another channel.

If the pain moves along the channel, I follow it with ashi needling along my initial treatment channel. If pain moves to or originates in the middle of the back (i.e., the Du Mai), balancing points for the Du Mai should be used. If the pain moves to or originates in the lateral thoracic region (i.e., the GB channel), GB balancing points should then be employed.

"Some of the advantages of this method are that only distal points are used, so the treatment can be done in a sitting or reclined position. This is helpful if it is difficult for the patient to get on a treatment table or for treatments done in a community setting."

Meridians that balance the GB channel are the SJ, HT, LV, and GB channels. I use the same method stated above using the arms and legs as image models for the torso. First, I palpate for ashi, and needle the areas that are most tender. If I have already modeled one area of the arm or leg, I will start in that area.

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Meridians that balance the Du Mai include the Ren Mai and the Du Mai. The areas of the Ren Mai to be needled would be exactly opposite of the painful area on the Du Mai. For example, for upper thoracic pain, I palpate the sternum along the Ren channel. I then needle ashi. For lower thoracic pain, I would do the same technique but palpate along the abdominal area of the Ren channel directly opposite of where the pain is presenting on the Du. To use the Du to balance the Du, palpate along the scalp between Du-21 and Du-23.

continued on page 38

CLINICAL PEARLS

How do You Treat Thoracic (Upper or Middle) Back Pain in Your Clinic?

By Atara Noiade, DOM, EAMP

Atara Noiade, EAMP, DOM holds an MSci in Biosciences and Regulatory Affairs from Johns Hopkins University. She is an NCCAOM Diplomate in OM and Herbal Medicine and has served on the BOD Executive Committee of the American Association of Acupuncture and Oriental Medicine and as chair of the AAAOM Herbal Medicine Committee. She practices Chinese medicine on Bainbridge Island in the state of Washington.

Thoracic pain can have many causes, and can have excellent treatment results with acupuncture. Each case will be different, and unless one or two treatments resolve the problem, it is often helpful to obtain patient records or x-rays to determine the origin of the pain. This may assist in determining the best possible treatment course for the patient.

In this particular case of thoracic pain, the 45-year-old male patient presented with acute, sharp pain at vertebra T-3, especially on the left side, radiating down to lower back and around to the front of his chest. The patient's back would go into spasms after coughing or sneezing from allergies. The night before, the patient had been shoveling gravel and had no history of serious or severe back pain or back problems. The patient's general presentation was mild Kidney *qi* deficiency and Lung *qi* deficiency. The following treatment was applied:

- 1) Cupping lateral to T-3, bilaterally (too painful to apply directly over T-3)
- 2) LI-4, LV- 3: four gates used to open channels and clear inflammation
- 3) KI-3, UB-60: to strengthen Kidney *qi* and increase circulation in lower back
- 4) UB-12, 13, 14, 15, 42, 43, 44, 45: local for xue circulation in thoracic area
- 5) LU-9 bilaterally: regulate the lungs to calm cough

After the treatment, the patient was provided with gentle stretching exercises in the office. During one stretch, a slight popping sound was felt and the patient's pain was gone. This

"Each case will be different, and unless one or two treatments resolve the problem, it is often helpful to obtain patient records or x-rays to determine the origin of the pain."

was likely due to a rib head being slightly out of place. Once the rib head was moved back into place, the pain was alleviated. This works in the same way that a dislocated arm suddenly has virtually no pain once it is relocated into the shoulder socket. In this case, the increased circulation from the needles combined with the gentle stretching likely allowed the rib to "pop" back into place. This subluxation had likely happened while

the patient was shoveling gravel the day before.

Following up with the patient after treatment, the patient reported no more pain and no spasms with coughing or sneezing.

How Do You Treat Thoracic (Upper and Middle) Pain in Your Clinic? (And What Do You Do if Pain Presents in the Chest or Abdomen Rather than in the Back?)

By Jennifer A. M Stone, LAc

In Chinese medicine, pain is characterized as bi syndrome—a stagnation of energy. Treatment involves moving the qi to break up the stagnation and harmonizing heat or cold to allow for continuous flow of qi following treatment.

In western allopathic medicine, pain specialists—anesthesiologists or physiatrists with a fellowship in pain medicine—identify and treat the nerve root involved in the pain syndrome. Treatments include, but are not limited to, physical therapy, oral or injected steroids, and surgery.

Bulging discs in the thoracic spine most often result in pain in the mid back or between the shoulder blades. Sometimes patients with thoracic spine injury feel no pain in the back but have excruciating pain in the chest or abdomen. This pain presentation can be costly to diagnose. Computed tomography scans and ultrasounds are needed to rule out disorders of the internal organs. If the western diagnostic tools reveal no results, patients are diagnosed with idiopathic pain (cause unknown). These patients are limited to pharmaceutical treatments: serotonin-specific reuptake inhibitors, narcotics, and anti-seizure medication that minimally help the symptoms but do not address the root of the problem.

When a patient presents to my pain clinic with idiopathic non-cardiac chest pain or abdominal pain, I first identify the dermatome involved and follow it back to the nerve root. Palpation of the spinous process of the vertebrae surrounding the affected dermatome

will usually reveal swelling or tightness of the muscles surrounding the area. Often when I palpate the Du channel, inconsistencies in the spacing of the spinous processes around the affected nerve root are observed.

In treating all patients with thoracic pain, both presenting in the mid back and the anterior part of the body, I use a modified dermatome treatment. Once the dermatome level is identified, I insert needles into points along the Du channel above and below the affected area at a depth of 1.5-2 cm. It is important to insert the needle into the

supraspinal ligament. I insert additional needles in the *Hua Tuo* points deep enough to penetrate the intraspinous ligaments around the affected vertebra and any additional *ashi* points along the erector spinae that are tight when palpated. If the affected area is between the shoulder blades, points would include GV-9, GV-10, GV-11, GV-12, UB-14, UB-15, UB-16, UB-17 (bilaterally) and *hua* to points at the same level.

A 1991 graduate of the Midwest College of Oriental Medicine in Chicago, Illinois, Jennifer A.M. Stone, LAc is an adjunct clinic and research faculty member in the Indiana University School of Medicine, Department of Radiation Oncology. She has participated in NIH-funded research on animal and human subjects. Currently, Jennifer is the co-principal investigator on a cancer study, which is examining the impact of acupuncture on chemotherapy-induced peripheral neuropathy. She maintains a clinic, East West Acupuncture, Inc., in Bloomington, Indiana.

"Bulging discs in the thoracic spine most often

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costly to diagnose. "

GREG GOLDEN: HOW DO YOU TREAT THORACIC (UPPER OR MIDDLE) BACK PAIN IN YOUR CLINIC?

CONTINUED FROM PAGE 35

This is an imaging method where the back is imaged on the top of the head, with Du-20 representing the second lumbar vertebrae or Du-4 and the hairline representing the area of the head. Du-21 to Du-23 is roughly the thoracic region.

Even if pain initially traverses the entire back crossing all three channels, there is no need for what is known as a matrix analysis, as there are no meridians that balance any combination of the Du, GB, and BL channels. I simply find the most tender area of the arm or leg and balance the GB and BL with two meridians (i.e., both the LU and HT channels). The pain may disappear entirely. If so, the treatment is complete. If pain moves up or down the back, move up or down the arm and continue to look for *ashi* and needle accordingly. If the pain retreats to the spine, proceed to method described above for balancing the Du. Results should be immediate—or as Dr. Tan likes to say: *Stand pole, see shadow*.



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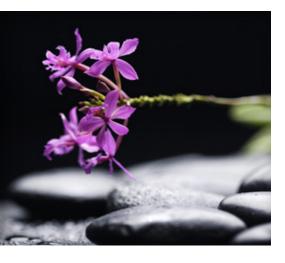
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Commentary: The Role of Chinese Medicine in Mental Health Treatment in the 21st Century

By Will Fudeman, LCSW, LAc

Will Fudeman, LCSW, LAc graduated from SUNY at Buffalo School of Social Work in 1976 and from the New England School of Acupuncture in 1997. His healing practice combines his training in Chinese medicine with his training in counseling psychotherapy to offer comprehensive treatment to people struggling with emotional challenges. Will also teaches qigong as an empowering path to healing one's own heart. He can be reached at www.willfudeman.com

The bad news about psychiatric drugs is out.

With long-term use, antidepressants, anti-anxiety medications, and antipsychotics all can cause more harm than good. Unfortunately, many members of the psychiatry profession pass on to their patients what I regard as misinformation disseminated by pharmaceutical companies. People are told that emotional problems are basically caused by a chemical imbalance in the brain, which these drugs are said to fix. No evidence yet published demonstrates this assertion to be undeniably true. According to Robert Whitaker, in his 2010 book, *Anatomy of an Epidemic: Psychiatric Drugs, Magic Bullets, and the Astonishing Rise of Mental Illness in America*, the longer people take psychiatric drugs, the more likely they are to have ongoing emotional problems.¹

In chapter five, "The Hunt for Chemical Imbalances," Whitaker cites diverse sources to debunk the pharmaceutical companies' favorite theory. "The evidence does not support any of the biochemical theories of mental illness," concluded Elliott Valenstein, a professor of neuroscience at the University of Michigan, in his 1998 book, *Blaming the Brain*. Even U.S. Surgeon General David Satcher, in his 1999 report, *Mental Health*, confessed that "the precise causes (etiologies) of mental disorders are not known." In *Prozac Backlash*, Joseph Glenmullen, an instructor of psychiatry at Harvard Medical School, noted that "in every instance where such an imbalance was thought to be found, it was later proved to be false." Finally in 2005, Co-Editor in Chief Kenneth Kendler of *Psychological Medicine* penned an admirably succinct epitaph for this whole story: "We have hunted for big simple neurochemical explanations for psychiatric disorders and have not found them."²

Whitaker goes on to quote Italian psychiatrist Giovanni Fava, pointing to Harvard Medical School instructor Ross Balessarini's 1997 meta-analysis of the literature, "it was evident that the longer one stayed on antidepressants, the worse the problem....the longer the drug treatment, the higher the likelihood of relapse." Fava summed up the problem: "Antidepressant drugs in depression might be beneficial in the short term, but worsen the progression of the disease in the long term, by increasing the biochemical vulnerability to depression... Use of antidepressant drugs may propel the illness to a more malignant and treatment unresponsive course."

Thousands of years before pharmaceuticals were invented, Chinese medicine provided treatments and daily self-care practices for harmonizing the emotions. Twenty-first century practitioners of Chinese medicine continue to treat great numbers of people who seek relief from stress in their lives by treating the physical symptoms clearly associated with

that stress. Increasingly, people who have been taking psychiatric drugs and dealing with the side effects (from diminished sex drive to dizziness, fatique, insomnia, and headaches) are now seeking acupuncture treatments to help them disengage from their drug dependence and find a more effective approach to healing the emotional aspects of their lives.

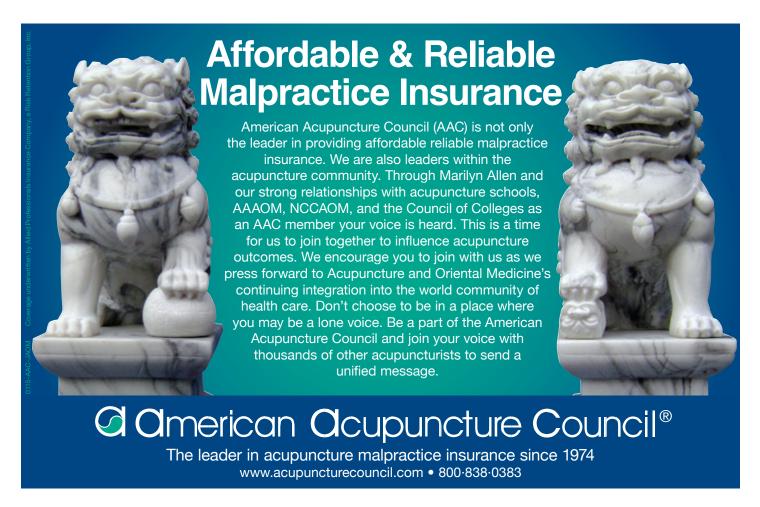
During the 20 years I was a psychiatric social worker before attending acupuncture school, and in my work as a licensed acupuncturist, I've come to believe that Chinese medicine can provide a very useful adjunctive treatment to the psychotherapy currently available in our culture. Please note, however, that I do not assert that Chinese medicine offers a quick fix for emotional imbalances. In acute situations where a person is at high risk of suicide, I do not recommend acupuncture alone. A short-term use of powerful pharmaceuticals might be the most effective way to interrupt a psychotic process.

What I do hope is that our profession can now consider how we can offer strategies that our medicine can provide to help people struggling with anxiety, depression, post-traumatic stress disorder, and sleep disturbance. One important step is for us to educate psychotherapists in our communities on the many ways Chinese medicine can facilitate the healing process of a therapeutic

relationship by catalyzing energetic shifts towards balance that can speed recovery and personal growth toward more satisfying lives.

A book I authored on this topic, Before Pharmaceuticals: Emotional Healing with Chinese Medicine (Alpine (NJ): Bryce Cullen Publishing; 2012), provides examples of successful uses of acupuncture, herbal medicine, and qigong practice in the treatment of people struggling with emotional imbalances. Over time, more psychotherapists and mental health workers and more people seeking help with emotional issues may come to see treatment with acupuncture or regular qigong practice as more useful and essential to their lives than a daily dose of Prozac or Xanax.

One special concern, addressed by Stephen Cowan, MD in his Appendix to Before Pharmaceuticals, is "the explosive rise in the diagnosis of children with emotional disorders over the past 20 years... (and) the significant overuse of strong psycho-pharmaceutical medications originally intended for adults and not FDA approved for pediatric use."5 Dr. Cowan offers practical suggestions to parents and practitioners to help them recognize each child's nature (by use of Chinese five element diagnostic thinking) to best nourish each child's attention and self-esteem.



"What I do hope is that our profession can now consider how we can offer strategies that our medicine can provide to help people struggling with anxiety, depression, post-traumatic stress disorder, and sleep disturbance. One important step is for us to educate psychotherapists in our communities on the many ways Chinese medicine can facilitate the healing process of a therapeutic relationship by catalyzing energetic shifts towards balance that can speed recovery and personal growth toward more satisfying lives."

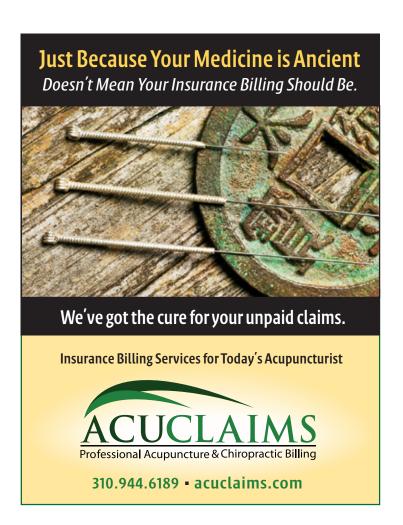
As more psychotherapists refer their clients for acupuncture, and more people suffering from emotional challenges seek relief from Chinese medicine, we practitioners will be called upon to increase our skills in treating patients who require our help for long periods of time (possibly years) and who sometimes exhibit off-putting behaviors. People who are seriously depressed and anxious can seem self-absorbed, resistant to following through with healthy suggestions, and slow to change, but I believe that it is possible for AOM practitioners to learn how to work with this pathology and treat them successfully. The fact that Chinese medicine can provide rapid relief of emotional discomfort as well as give guidelines for living a more balanced life can provide positive motivation for afflicted people who want to improve their lives.

Our profession has great possibilities to offer help to people in emotional pain. As well, many of us may find ourselves moved to learn more about emotional healing from a western perspective. The neuro-science behind the masterful *A General Theory of Love* by Lewis, Amini and Lannon is one resource I highly recommend to acupuncturists moved to work with this population.⁶

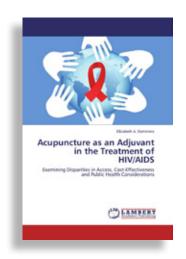
I have given a number of presentations and have participated on conference panels on the topic of depression and anxiety. As a practitioner, these have all been valuable experiences for me as I both speak with and learn from a variety of mental health practitioners. Over time, we can look forward to more acupuncturists and instructors of *qigong* and *tai chi* being invited to collaborate and exchange ideas with psychotherapists. We have a great deal to offer and, always, a great deal to learn.

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BOOK REVIEW



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Acupuncture as an Adjuvant in the Treatment of HIV/AIDS: Examining Disparities in Access, Cost-Effectiveness and Public Health Considerations
By Elizabeth Sommers, PhD, MPH, LAC

Book Review by S. Prasad Vinjamury, MD (Ayurveda), MAOM, MPH

This book is the first of its kind to describe the usefulness of acupuncture for HIV patients. Dr. Sommers, a strong advocate for acupuncture, distinctively explores and supports the role of acupuncture as an adjuvant in the treatment of HIV/AIDS. Her discussion begins with a very insightful description of the inter-relationships of adherence to treatment, quality of life, and the management of side effects among HIV/AIDS patients. She rationalizes her research by drawing our attention to the literature that indicates reduction in adherence rates in relation to the side effects of the treatment for HIV/AIDS. These side effects also affect the health-related quality of life in these patients.

Her research is unique in two aspects, making it distinctive in this area of investigation. First, Dr. Sommers attempts to determine the cost-effectiveness of acupuncture treatment as a method of promoting and sustaining adherence to HIV-combination therapy. Second, she explores whether or not disparities to access to acupuncture due to changes in federal funding have had any effect on the adherence and quality of life of the selected population.

The book is divided into three chapters. The first two chapters describe the current scenario of HIV and the challenges faced by the patients who undergo highly active anti-retroviral therapy (HAART). Based on an extensive literature review, the author pinpoints the need for an intervention that can improve adherence to enhance the clinical outcomes in the HIV/ AIDS patients.

"Dr. Sommers, a strong advocate for acupuncture, distinctively explores and supports the role of acupuncture as an adjuvant in the treatment of HIV/AIDS." In addition to the side effects, the author notes that factors such as patient demographics, health beliefs, perceived benefits, costs of treatment, and unemployment also influence compliance with treatment regimens. Dr. Sommers emphasizes the importance of addressing all these factors because non-adherence may lead to development of a resistant virus, increased viral load, and/or potential transmission of resistant virus and cross-resistance to other medications. Based on the extensive literature review, she pinpoints the need for an intervention that can improve adherence to enhance the clinical outcomes in the HIV/AIDS patients.

In this context she explores the use of complementary and integrative medicine (CIM) by people living with HIV/AIDS and reports that an estimated 40-80% use CIM in conjunction with conventional medicine and not as an alternative to it. Acupuncture is one among these health approaches that is widely used (approx. 50%) by this population, but its therapeutic and cost effectiveness for this specific illness have not been studied.

The intention in this book is to bridge this gap by presenting the results of a retrospective review of patient records from the AIDS Care Project carried out in the Pathways to Wellness clinic in Boston. Dr. Sommers adopted the framework developed by Goldie and colleagues to study the cost effectiveness and therapeutic benefit of acupuncture and thus understand

its role in promoting adherence to HAART. In this record review, CD4 counts, viral loads and digestive symptoms were used as outcome measures to determine clinical outcomes. Changes in digestive side effects and adherence were evaluated based on self-report.

In the third chapter, Dr. Sommers investigates the impact of cessation of federal funding through Ryan White Care Act (RWCA), which enabled access to acupuncture care to those who could not afford this service out of pocket. The funding ended in June 2005. The author argues that such loss in access to care would decrease the utilization and thereby may have an effect over adherence. As part of this investigation, a detailed description of the factors commonly associated with disparities in access to care for HIV/AIDS are elaborated to give the reader a quick overview of the current scenario. The list includes factors such as ethnic background, gender, stage of illness, and behavioral or psychosocial factors such as chemical dependency.

Towards the end of this chapter she examines the changes in funding, impact on service utilization, characteristics of the populations affected and the scientific methodology she adopted to investigate the disparities in access. Dr. Sommers uses some sophisticated statistical methods to prove her point and to also satisfy both the serious researcher and the sceptic, who each require evidence to back the presented arguments.

Her investigations included three groups of HIV/AIDS individuals: long term users, new/recent users, and "at risk" users. Approximately 1000 patients, more males than females, were included in this analysis; the ages of patients ranged between 45 and 49 in these groups. Her analysis indicates that the treatment numbers decreased significantly, starting at 4700 in 2000 and then decreasing to 1500 treatments in 2007. The number of new clients also decreased steadily during that period, which supports her hypothesis.

She noticed that patients who received acupuncture treatment for a longer period and started these treatments prior to the RWCA funding continued with acupuncture treatments, but those who started acupuncture after the funding started discontinued it. The author surmised that this may be due to lack of

"Despite the positive findings, Sommers rightfully cautions her readers to interpret the results carefully because her 'analyses are based on a small-to-moderately sized self-selected sample and are thus not representative or generalizable."

reimbursement for transportation and unaffordability of acupuncture treatments. Despite the positive findings, Sommers rightfully

cautions her readers to interpret the results carefully because her "analyses are based on a small-to-moderately sized self-selected sample and are thus not representative or generalizable."

For the general reader, this book offers insight into the usefulness of acupuncture as an adjuvant in managing the side effects of HIV/AIDS treatment. It encourages patients with HIV/AIDS to seek acupuncture treatment to reduce the side effects of HAART and improve their quality of life but also to adhere to the Western treatments, which will ultimately decrease the viral load, improve immunity and reduce mortality. For researchers, this book can serve as a guide for examining the feasibility of including acupuncture as a treatment option in the management of HIV/AIDS. For an acupuncture practitioner, it can be a valuable resource when addressing the types of symptoms that are managed with acupuncture care.

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Conclusions

The data presented in this paper is the first step toward the creation of a practical, consensus-based *Nei Jing* curriculum. Reasonable consensus on the 10 most important chapters for master's level students was reached after only one survey. The data also suggests that, although the *Nei Jing* is taught as a part of broader academic courses at many schools, there are a minimum of schools that teach this text as a required part of the curriculum. While the present study has identified the *Nei Jing* chapters that are considered to be most relevant to master's level students, a more detailed survey could yield additional insights into the text.

As the American model of education in East Asian medicine continues to evolve, the opportunity for new and exciting curriculum changes presents itself. What better way to honor the ancient sages who put forth the foundational theories of this medicine than to incorporate the *Nei Jing* into the curriculum at more schools? After all, "Even today, practitioners intent on modernizing Chinese medicine declare allegiance to the canonical tradition that links them in a direct line to...the Yellow Emperor." 10

Author's Note: Since the completion of this research, another school has added a "Survey of the Classics" class. As such, the new percentage of ACAOM-accredited master's programs that meet the selection criteria is 53% rather than the original figure of 51%.

Acknowledgements

Thanks to Dr. Sonya Pritzker, who contributed invaluable insights and helpful suggestions, to Dr. Dong Ji, who provided support and guidance with regard to classical sources, and to Dr. Stacy Gomes, who provided assistance with relevant pedagogical concerns. Finally, I would like to thank my teacher, Yanzhong "Kevin" Zhu, who introduced me to the classical texts of Chinese medicine and inspired me to seek the "mind of the sages."

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