

Australian Journal of Acupuncture and Chinese Medicine

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This issue marks the completion of five years of publication of the journal. The quality, diversity, and number of submitted manuscripts have increased over the period. In addition to articles from local researchers, we have received many manuscripts from our neighbours New Zealand and further afield in Asia and Europe. This is a healthy sign and reflects the increasing professionalisation and status accorded to Chinese medicine both on a national as well as international level.

Central to professionalisation is how to further develop Chinese medicine. Two main methods are 'back to the tradition and classics' and 'modernisation'. These two are considered contradictory by some people; I see however the necessity of both. Indeed, 'walking with two legs' is far quicker than with one. As for modernisation of Chinese medicine, an example of a narrow concept would be to use advanced technology to identify active compounds of Chinese medicinal herbs.¹ This does not reflect the opinion of this journal. I consider that what current Chinese medicine practitioners do is a process of modernisation, which this journal has been proudly facilitating. This issue provides fine examples of how Chinese medicine is transforming in Australia and other western countries in the areas of research, health service and clinical practice.

Standards for reporting interventions in controlled trials of acupuncture (STRICTA),² first developed by acupuncture researchers from western countries, represents the utilisation of rigorous scientific methods in reporting acupuncture treatments. For the first time, the needling process was dissected and recorded in details and replication becomes possible. Potential authors are well advised to consult STRICTA and indeed we require that any clinical research submitted to this journal comply with its requirements. In this issue, we publish the updated version of STRICTA. In his guest editorial, Zaslowski illustrates the background and significance of the guidelines. Another example in this category is the recent report by the National Institute of Complementary Medicine, in which advanced mathematical modeling was developed to analyse the cost-effectiveness of acupuncture and other complementary therapies. You will find further details in Current Research and Clinical Applications.

One paper in this issue that infuses a local flavour of modernisation of Chinese medicine concerns the characteristics of a rural Australian acupuncture practice. The patient profile

differs distinctly from that of its Chinese counter part. Rural acupuncture clinics in both countries seem, however, to serve a similar purpose, to some degree, filling the gaps in the healthcare system resulting from deficiency in services and staffing.³

Three other papers in this issue represent two ways of how knowledge of Chinese medicine can be used and modified to treat ailments of modern diseases. The first one looks at the herbal formulae associated with *wen bing* (warm diseases), which theory was developed in China in the 16th century, and their potential use for avian flu (H1N1). While speculative in nature, the paper offers a method for practitioners of how to flexibly utilise ancient knowledge to examine modern health concerns. It also behooves practitioners to become familiar with classic literature and return to the essence of Chinese medicine. The case report of using acupuncture to treat HIV associated neuropathy further strengthens the point. From a different spectrum, a second case report reflects how knowledge of modern anatomy and pathology can be incorporated into acupuncture practice to enhance its therapeutic effect on plantar fasciitis. Both case studies also give helpful advice to practitioners who may be struggling to treat such conditions.

Finally we have the first of a two-part series interview with Professor Wang Juyi, who becomes well known in the West through his collaborative work with Jason Robertson in *Applied Channel Theory in Chinese Medicine* (reviewed in Vol 4, Issue 2). In the interview, Professor Wang shares with us his thoughts on acupuncture practice in the past and future.

I am sure that you will enjoy reading this issue—so turn the page and start reading.

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Zhen Zheng
Editor-in-Chief

Guest Editorial

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Deputy Editor

In this issue we include the revised Standards for Reporting Interventions in Clinical Trials of Acupuncture guidelines (better known as STRICTA), which is now an official extension to the widely used Consolidated Standards of Reporting Trials (CONSORT) statement. As well as appearing in AJACM, it is also being co-published simultaneously in six other research-focused journals: *Acupuncture in Medicine*, *PLoS Medicine*, *Journal of Evidence Based Medicine*, *Journal of Chinese Integrative Medicine*, *Medical Acupuncture* and the *Journal of Alternative and Complementary Medicine*. STRICTA was first published in 2001 and I was present at its inception in 2000 at Exeter, UK, when Dr Hugh MacPherson first showcased his initial concept to a number of acupuncture researchers. The STRICTA guidelines then went through a subsequent second drafting involving several acupuncture journal editors who revised the checklist to six key domains. Shortly thereafter it was published in five leading acupuncture journals, which led to its widespread adoption by many researchers when reporting their clinical research. Since its publication it has been translated into Chinese, Japanese and Korean, and many Asian researchers now use the checklist as well. During the intervening period, STRICTA has undergone several reviews. The first

review involved questioning authors of clinical trials and systematic reviews¹ as to its utility, while the second review evaluated the impact of STRICTA during the period 2001–2007.² In 2008 the STRICTA group began working with the CONSORT group and the Chinese Cochrane Centre to consider adding STRICTA as an extension to the official CONSORT statement. This resulted in a wide-ranging consultation process and a one-day consensus meeting to consolidate the revised guidelines.³ The revised STRICTA checklist has 17 information requirements which have been categorised into six items. These six items are: (i) acupuncture rationale, (ii) details of needling, (iii) treatment regimen, (iv) other components of treatment, (v) practitioner background, and (vi) control or comparator interventions. In addition to the item checklist there are detailed explanations for each of the items and an example to assist interpretation of each requirement.

As readers are no doubt aware, AJACM has endorsed the use of STRICTA since the inception of the journal and will continue to require researchers who submit clinical studies to comply with the revised STRICTA guidelines. STRICTA, while useful for peer review, also ensures that authors include sufficient details to enable replication by other research teams

and to allow readers to critically appraise the adequacy of the acupuncture being delivered. STRICTA has been developed to be used with other reporting checklists, especially the CONSORT statement. The use of STRICTA will drive the development of high-quality clinical trials and the publication of their results. The revised checklist represents another important step towards ensuring clear and transparent research reporting and a better understanding of the research process. The editorial board of AJACM is proud to support the simultaneous publication of STRICTA and will continue to expect submitting authors to use the STRICTA guidelines for reporting purposes.

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A Country Practice: Characteristics of Patients of a Rural Acupuncture Clinic

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ABSTRACT

The use of complementary and alternative medicines (CAM), including acupuncture, in Australia is increasing. While data describing the characteristics of traditional Chinese medical practitioners and the nature of the workforce exist, there is comparatively little research into the users of traditional Chinese medicine in a private practice context. This study explores the characteristics of patients presenting at a rural Victorian acupuncture practice during the first two years of operation. Patients were typically female, married, and had a mean age of 44 years. The typical patient self-referred or was referred through the multidisciplinary clinic, and was taking vitamins or supplements. The most common reason for presentation was pain. Patient characteristics were similar to existing data for Australian CAM patients. In order to more accurately describe the users of acupuncture, practitioners must contribute to the literature. In addition, practitioners should describe issues that are unique to practice in their context.

KEYWORDS acupuncture, clinic, patient characteristics, rural

Introduction

It has been well documented that the use of complementary and alternative medicine (CAM), including acupuncture, has been increasing in Australia and the number of CAM practitioners has increased accordingly.¹ Recent workforce data from Victoria suggest that the majority of acupuncturists practise in metropolitan areas, with only 10.4% of registered Chinese medicine practitioners practising in rural areas.²

Australian census data describe the majority of consumers of CAM, including chiropractic, naturopathy and acupuncture, as female, with the highest proportion between 25 and 64 years of age.¹ There are many studies reporting characteristics of acupuncture consumers attending university clinics³⁻⁶ hospital outpatient departments,^{7,8} and in general practice,⁹⁻¹⁵ as well as telephone or postal surveys of users of complementary medicine, including acupuncture.^{16,17} A literature search revealed only one paper describing characteristics of patients in Australian private practice.¹⁵

Bensoussan and Myers surveyed medical and non-medical practitioners of Traditional Chinese Medicine (TCM) across Victoria, New South Wales, and Queensland. Practitioners were requested to describe characteristics of all patients treated on a specific day. Responses were received from 223 non-medical practitioners and 51 medical practitioners. Patients were typically female (approximately two thirds), with those attending non-medical practitioners being younger (mean 40 years vs 50 years). Thirty eight per cent were engaged in full time work, 33% had private health insurance covering acupuncture, and 83% either self-referred or heard about acupuncture through word of mouth. Vitamins and supplements were the most frequently used medications, with 36% of patients concurrently taking pharmaceutical drugs. The most frequently cited reason for seeking acupuncture was rheumatological conditions.¹⁵

There is a dearth of literature describing characteristics of people using acupuncture in a private practice setting, and no information about rural acupuncture consumers. Therefore,

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the aim of this study was to explore the characteristics of people attending a rural Victorian acupuncture practice, to compare these with existing data. In addition, this paper aims to discuss some of the issues and experiences of an acupuncturist practising in a rural Victorian town.

Context

The acupuncture practice operates from a multi-disciplinary clinic in Sale, a town in south-eastern Victoria with a population of approximately 14 000 people. The clinic primarily provides chiropractic care, with massage and myotherapy, naturopathy, counselling, and prosthetics and orthotics services also available. Acupuncture is provided two days per week by one acupuncturist, with hours varying to accommodate people needing appointments outside of office hours. One hundred and ninety-one new patients attended the practice during the first two years of operation, and the acupuncture practice sees an average of 11.8 patients per week.

TABLE 1 Demographic Information for Patients

Gender (<i>n</i> = 191)	
Female	149 (78.0%)
Male	42 (22.0%)
Age (<i>n</i> = 191)	
Female	43.1 (14.7)
Male	47.0 (17.5)
Marital status (<i>n</i> = 191)	
Married	120 (62.8%)
Single	31 (16.2%)
Defacto	28 (14.7%)
Other	12 (6.3%)
Employed outside the home (<i>n</i> = 178)	141 (79.2%)
Private health insurance (<i>n</i> = 191)	106 (55.5%)
Referral source (<i>n</i> = 186)	
Clinic (including internal referrals from AHP)	86 (46.2%)
Family/friend/word of mouth	58 (31.2%)
Advertising	15 (8.0%)
AHPs (external to clinic)	6 (3.2%)
Internet	6 (3.2%)
Phone book	6 (3.2%)
GP referral	5 (2.7%)
AACMA/CMRB referral	4 (2.2%)
Previous use of acupuncture (<i>n</i> = 191)	86 (45.0%)
Values are <i>n</i> (%) or mean (SD)	

Method

An audit of registration forms was conducted. Demographic data collected for all new patients presenting to the clinic during the first two years of operation, from December 2007 to December 2009, were included in this study. During the first consultation, patients completed a registration form which contains demographic details (including gender, age, marital status, occupation, private health insurance, and source of referral), previous experience with acupuncture, current medications, allergies and consent to treatment.

Medications used by patients were classified according to MIMS categories.¹⁸ While on the registration form patients listed all medications used, for the purposes of this study, the focus was on the categories of medications used, rather than the frequency of category use. For example, where multiple medications were used for controlling blood pressure, this was recorded as one use of a medication from the MIMS cardiovascular category.

Presenting complaints were grouped into the following categories: pain, fertility, pregnancy, digestive, gynaecology, menopause, dermatology, stress/anxiety/emotional disturbance, general wellbeing, and other. Subcategories of pain included back, neck, headache, arm, shoulder, elbow, leg, knee, ankle, and other (e.g. post-surgery, tooth/jaw, etc).

Advice was sought from two ethicists as to whether patient consent was required for the study. The advice indicated that as the study was reporting on characteristics of a business, it was not required; however, it was advisable to present results in aggregate so as to maintain patient confidentiality. Data were collated and entered into a Microsoft Excel spreadsheet for analysis, and results are presented in aggregate. Descriptive statistics were used, including frequencies and means.

Results

PATIENT CHARACTERISTICS

Demographic data are presented in Table 1. One hundred and ninety one patients attended the clinic in the study period, with the majority being women (78.0%), aged 43.9 years (with males older than females, 47.0 vs 43.1 years), married (62.8%), employed outside the home (79.2%), had private health insurance (55.5%), and had not previously used acupuncture (55.0%). Whether private health insurance covered acupuncture services was not collected.

Source of referral data were missing for five patients. Over 46% of patients heard about the service through the clinic, which included internal referrals from allied health professionals, advertising material in the waiting room and in each of the treatment rooms. Thirty one per cent

of patients were referred through word of mouth, and 8% through advertising in local newspapers.

MEDICATION USAGE

Medication use is described in Table 2. One hundred and eighty five patients (96.9%) were using one or more types of medications (prescribed or vitamins/supplements). Of those using medication, vitamins and supplements were most commonly used (56.8%), followed by cardiovascular (18.9%), endocrine/metabolic (17.8%), alimentary (15.1%), and central nervous system (14.6%).

PRESENTING COMPLAINTS

Pain was the most common reason for people presenting at the clinic (47.1%; see Table 3). The acupuncturist has an interest in women's health, reflected in the next four most frequently seen health complaints: fertility (14.7%; including natural and assisted conception), pregnancy (5.8%; including pregnancy related health complaints and general wellbeing during pregnancy), digestive (4.7%), and gynaecology (3.7%).

Discussion

The characteristics of patients attending a rural Victorian acupuncture practice are similar to those previously published for Australia as a whole in relation to gender, age, previous acupuncture experience and presenting complaint.¹⁵ Although the proportion of women attending the practice may have been influenced by the acupuncturist's interest in women's

health, this is less likely due to similarities in the proportion of women reported in previous Australian studies.^{1,15} A key difference was noted in the source of referral. In this study, the clinic environment was a major factor in informing clinic attendees about the acupuncture service available. A strong referral culture has been fostered within the clinic, ensuring patients receive continuity and coordinated care, a feature not unnoticed by patients.

The categories for medication used by patients are similar to those of previous studies,¹⁵ particularly the use of vitamins and supplements. Medications from the endocrine/metabolic category were used almost as frequently as cardiovascular medications. This was surprising, but can be explained by the acupuncturist's strong focus on women's health. Almost 15% of women presented for fertility support, with many of these undergoing assisted reproductive techniques, including IVF. A vast majority of the medications used for IVF and assisted reproduction fall into the category of endocrine/metabolic.

Private health insurance data were collected to identify individual insurance companies for which provider numbers needed to be sought. Whether private health insurance covered acupuncture services was not documented on the patient registration form. This highlights the importance of considering the information being collected, and how this

TABLE 2 Medication Groups Used by Patients

Medication group	Number of patients*
Alimentary	28 (15.1%)
Cardiovascular	35 (18.9%)
Central nervous system	27 (14.6%)
Analgesia	14 (7.6%)
Musculoskeletal	11 (5.9%)
Endocrine/metabolic	33 (17.8%)
Genito-urinary	1 (0.5%)
Infections/infestations	5 (2.7%)
Neoplastic	4 (2.2%)
Respiratory	6 (3.2%)
Allergic disorders	5 (2.7%)
Ear, nose and throat	3 (1.6%)
Eye	2 (1.1%)
Skin	1 (0.5%)
Contraceptive	10 (5.4%)
Vitamins and supplements	105 (56.8%)

*Patients using one or more drugs from medication group

TABLE 3 Presenting Complaints of Patients

Presenting complaint (n = 191)	N (%)
Pain (n = 90)	90 (47.1%)
Back	19 (21.1%)
Leg	12 (13.3%)
Neck	11 (12.2%)
Arm	11 (12.2%)
Headache/migraine	9 (10.0%)
Shoulder	9 (10.0%)
Elbow	6 (6.7%)
Knee	4 (4.4%)
Other	9 (10.0%)
Fertility	28 (14.7%)
Pregnancy	11 (5.8%)
Digestive	9 (4.7%)
Gynaecology	7 (3.7%)
Menopause	6 (3.1%)
Dermatology	6 (3.1%)
Stress/anxiety/emotional problems	5 (2.6%)
General wellbeing	5 (2.6%)
Other (including sleeping, weight loss, breathing difficulties)	24 (12.6%)

information would be used. Collecting data about health insurance ancillary cover would further add to the literature.

Collecting patient information on the registration form provided valuable data about the characteristics of patients attending for acupuncture. This information was intended to be used in two ways from the outset. Firstly, it provided key data that fed into marketing strategies for the business. Secondly, knowing that there was relatively little data about users of acupuncture services in private practice, the intention was to publish characteristics of patients. Private practitioners should be encouraged to publish the characteristics of their clinic,¹⁹ as more information about the nature of private practices will help inform choices, particularly for new graduates or those considering relocation.

Despite similarities between patients of this rural acupuncture practice and national data,^{1,15} rural practice can bring unique challenges. Rural practice can be isolating, both geographically and professionally.²⁰ The onus is on the practitioner to maintain contact with colleagues, the profession (e.g. through continuing education programs), and other health professionals, and the importance of establishing strong networks is amplified.

Having an interest in and knowledge of the community can assist with integrating into a rural community for newcomers. In country towns, local events become talking points, and having an understanding of local issues can assist in promoting a sense of belonging and connectedness. Other professions describe the life of a rural health professional as lacking anonymity compared with colleagues working in the city.²¹ This can be both positive and negative. Seeing patients at the shops or social events can provide informal opportunities for follow up and to further build rapport. Many health professionals describe the lack of anonymity as making separation between work and private life difficult, and report a sense of always being 'on call'.²²

Issues surrounding patient confidentiality can present more frequently than in cities, particularly when word of mouth is a key source of referral.²¹ Patients frequently report how you helped a friend or family member, and practitioners' responses to such comments need to be carefully measured to ensure patient confidentiality is maintained.

Conclusion

This paper adds to the body of literature about the users of acupuncture in private practice, and is the first describing characteristics of patients in a rural context. Patients attending the rural acupuncture practice were typically female, married, employed outside the home and with no previous acupuncture experience. Most patients were using medication (either

prescription or vitamins/supplements), and the most common reason for presentation was for alleviation of pain. Rural practice appears to attract similar clientele to existing data. More research around the users of acupuncture in private practice is needed, and will help inform choices for the workforce. Rural practice may present a viable alternative to city life.

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This paper was initially presented at the Australasian Acupuncture and Chinese Medicine Annual Conference (AACMAC), Adelaide, 21–23 May 2010.

Clinical Commentary

There is a dearth of information reporting on the characteristics of patients attending private acupuncture clinics in Australia, and in particular in rural areas. This paper describes the characteristics of patients presenting to a rural Victorian acupuncture practice. Patients were typically female, middle-aged, and self-referred for pain relief/management. The paper also describes issues that are unique to practice in rural areas. The findings from this study will help inform workforce choices of new graduates and experienced practitioners considering practice in rural areas.

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Revised STandards for Reporting Interventions in Clinical Trials of Acupuncture (STRICTA): Extending the CONSORT Statement

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ABSTRACT

The STandards for Reporting Interventions in Clinical Trials of Acupuncture (STRICTA) were published in five journals in 2001 and 2002. These guidelines, in the form of a checklist and explanations for use by authors and journal editors, were designed to improve reporting of acupuncture trials, particularly the interventions, thereby facilitating their interpretation and replication. Subsequent reviews of the application and impact of STRICTA have highlighted the value of STRICTA as well as scope for improvements and revision.

To manage the revision process a collaboration between the STRICTA Group, the CONSORT Group and the Chinese Cochrane Centre was developed in 2008. An expert panel with 47 participants was convened that provided electronic feedback on a revised draft of the checklist. At a subsequent face-to-face meeting in Freiburg, a group of 21 participants further revised the STRICTA checklist and planned dissemination.

The new STRICTA checklist, which is an official extension of CONSORT, includes 6 items and 17 subitems. These set out reporting guidelines for the acupuncture rationale, the details of needling, the treatment regimen, other components of treatment, the practitioner background and the control or comparator interventions. In addition, and as part of this revision process, the explanations for each item have been elaborated, and examples of good reporting for each item are provided. In addition, the word 'controlled' in STRICTA is replaced by 'clinical', to indicate that STRICTA is applicable to a broad range of clinical evaluation designs, including uncontrolled outcome studies and case reports. It is intended that the revised STRICTA checklist, in conjunction with both the main CONSORT statement and extension for non-pharmacological treatment, will raise the quality of reporting of clinical trials of acupuncture.

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Introduction

The Standards for Reporting Interventions in Clinical Trials of Acupuncture (STRICTA) reporting guidelines, first published in 2001,¹⁻⁹ were designed to improve the completeness and transparency of reporting of interventions in controlled trials of acupuncture, in order that such trials may be more accurately interpreted and readily replicated. STRICTA comprised a checklist that expanded the generic content of item 4 of the CONSORT statement,^{10,11} which relates to the reporting of the intervention.

A survey of authors of clinical trials and systematic reviews was subsequently conducted to determine the usefulness of STRICTA in helping them to write their reports.¹² In addition, a survey of 90 acupuncture trials was undertaken to assess whether use of the STRICTA checklist was associated with improved reporting over time.¹³ The results of these initiatives led to conclusions that most STRICTA items were found to be necessary and easy to use, though some were seen as poorly reported, ambiguous or possibly redundant and a number of suggestions were made for additional items. A revision of STRICTA was therefore proposed.

Meanwhile, extensions to CONSORT have been developed to cover the reporting of non-pharmacological treatments^{14,15} and pragmatic trials.¹⁶ Since there are acupuncture-specific aspects to reporting not covered by these extensions, it was decided that STRICTA should be revised in a manner congruent with CONSORT and its extensions for non-pharmacological treatments and pragmatic trials.

The combination of these developments led to an agreement between the CONSORT Group and the STRICTA Group, in collaboration with the Chinese Cochrane Centre and the Chinese Centre for Evidence-based Medicine, to revise STRICTA as a formal extension to CONSORT. The revision processes have been described in more detail elsewhere.¹⁷ This paper describes the outcome and new checklist, updated explanations and published examples of good reporting.

Methods

In the summer of 2008, a group of 47 experts from the original STRICTA Group, the CONSORT Group, the World Federation of Acupuncture and Moxibustion Societies, the Acupuncture Trialists' Collaboration,¹⁸ the Society for Acupuncture Research¹⁹ and clinical trial authors were surveyed.¹² The experts were from 15 countries, 41 had academic positions, 31 were acupuncturists, 18 were involved with journals, such as board members, 15 were doctors and 11 had previously helped in developing reporting guidelines. These experts were consulted about a draft of revised STRICTA

items that had evolved from previous research.^{12,13} Feedback was collated and forwarded (with permission) to those invited to a consensus development workshop, the next phase of the revision process.

Twenty-one people attended a workshop in Freiburg, Germany, in October 2008. The attendees included experts in epidemiology, trial methodology, statistics and medical journal editing. Just over half the participants were acupuncturists from a variety of backgrounds, including doctors and non-doctors. All attendees received collated feedback from the 47 experts, together with a draft revised STRICTA checklist for consideration.

The workshop comprised presentations about the history of STRICTA, CONSORT and the then new CONSORT non-pharmacological treatments extension.^{14,15} The results of two investigations into the utility and acceptability of STRICTA,^{12,13} and the subsequent consultation with the 47 experts, were also presented. A general discussion and agreement on generic issues relating to STRICTA were followed by a discussion of each nominated checklist item. The aim was to agree, where possible, on the content of the updated draft checklist as well as to develop a revised set of explanations for each included item.

Subsequent to the workshop, a small writing group edited drafts of the revised STRICTA checklist, identifying for each item one or more exemplars of good reporting, and developed text explaining the rationale and discussing relevant evidence. Taking into account further feedback from those attending the Freiburg workshop, the writing group finalised the STRICTA checklist, the explanations and the examples of good reporting.

Results

There was agreement that STRICTA should continue to function as a stand-alone guideline for reporting acupuncture studies and be an official extension of CONSORT for reporting randomised controlled trials. There was also consensus on a minor change of name, in that the word 'controlled' in STRICTA should be replaced by 'clinical', to indicate that it was applicable for reporting a broad range of clinical evaluation designs, including uncontrolled outcome studies and case reports. The group agreed that the rationale behind reporting should be to provide the information needed to allow replication of a study, reduce ambiguity and enhance transparency. The group recognised that acupuncture trials inevitably differ in the degree of individualisation of care that is permitted and agreed that the reporting guideline should acknowledge this and be applicable across the whole range of designs. The group also suggested that the revised STRICTA statement, when published, should be presented as embedded within the two-group parallel trial CONSORT checklist¹⁰ and its non-pharmacological treatment extension checklist.¹⁴

The revised STRICTA checklist comprises six items split into 17 subitems (Table 1). Table 2 presents details of the way in which the revised STRICTA checklist fits within the CONSORT checklist¹⁰ and its extension for non-pharmacological treatments.¹⁴ Below we provide the checklist text for each of the six items and their subitems, as well as explanations on the need for their adequate reporting and examples of good reporting from the published literature.

STRICTA Item 1: Acupuncture Rationale

ITEM 1A: STYLE OF ACUPUNCTURE (E.G. TRADITIONAL CHINESE MEDICINE (TCM), JAPANESE, KOREAN, WESTERN MEDICAL, FIVE ELEMENT, EAR ACUPUNCTURE, ETC)

EXPLANATION

Acupuncture has a long history in many cultures and is characterised by a broad diversity of styles and approaches

in both East Asia and the West.²⁰ In order for readers to contextualise the trial within the range of current clinical practices, researchers should state the overall style or approach on which they have based the treatments. If the researcher believes the treatment approach is completely novel, then this should be clearly stated.

EXAMPLES

- (A) We based the acupuncture point selections on traditional Chinese medicine (TCM) meridian theory to treat knee joint pain, known as the 'Bi' syndrome.²¹
- (B) Participants were randomised to two styles of acupuncture: Japanese style (Kiiko-Matsumoto's Form) and TCM style.²²
- (C) Four out of five of the acupuncturists primarily practised the Five Element style with a diagnostic focus on individual 'causative factors', (ref) and one used the Traditional Chinese Medicine style with diagnosis primarily based on syndrome patterns. (ref) Both styles are rooted in traditional acupuncture theory, and they are the most

TABLE 1 Revised Standards for Reporting Interventions in Clinical Trials of Acupuncture (STRICTA) items that replace CONSORT 2010 item 5 when reporting an acupuncture trial

Item	Detail
1. Acupuncture	1(a) Style of acupuncture (eg, Traditional Chinese Medicine, Japanese, Korean, Western medical, Five Element, ear acupuncture, etc)
	1(b) Reasoning for treatment provided, based on historical context, literature sources and/or consensus methods, with references where appropriate
	1(c) Extent to which treatment was varied
2. Details of needling	2(a) Number of needle insertions per subject per session (mean and range where relevant)
	2(b) Names (or location if no standard name) of points used (uni-/bilateral)
	2(c) Depth of insertion, based on a specified unit of measurement or on a particular tissue level
	2(d) Responses sought (eg, <i>deqi</i> or muscle twitch response)
	2(e) Needle stimulation (eg, manual or electrical)
	2(f) Needle retention time
	2(g) Needle type (diameter, length and manufacturer or material)
3. Treatment regimen	3(a) Number of treatment sessions
	3(b) Frequency and duration of treatment sessions
4. Other components of treatment	4(a) Details of other interventions administered to the acupuncture group (eg, moxibustion, cupping, herbs, exercises, lifestyle advice)
	4(b) Setting and context of treatment, including instructions to practitioners, and information and explanations to patients
5. Practitioner background	5 Description of participating acupuncturists (qualification or professional affiliation, years in acupuncture practice, other relevant experience)
6. Control of comparator interventions	6(a) Rationale for the control or comparator in the context of the research question, with sources that justify the choice(s)
	6(b) Precise description of the control or comparator. If sham acupuncture or any other type of acupuncture-like control is used, provide details as for items 1–3 above

This checklist should be read in conjunction with the explanations of the Standards for Reporting Interventions in Clinical Trials of Acupuncture items provided in the main text.

common traditional approaches used by professional acupuncturists in the UK today (ref).²³

- (D) Each patient was treated with non-local needle acupuncture (according to the theory of channels of TCM) at distant points and dry needling of local myofascial trigger points (TRPs).²⁴

ITEM 1B: REASONING FOR TREATMENT PROVIDED, BASED ON HISTORICAL CONTEXT, LITERATURE SOURCES AND/OR CONSENSUS METHODS, WITH REFERENCES WHERE APPROPRIATE

EXPLANATION

The author(s) should provide the reasoning for the chosen treatment, including rationale for diagnosis, point selection and treatment procedures. The 'rules' that were used in providing treatments should be described. When treatments were selected that have roots in traditional practice, it is recommended that the historical and cultural context be supplied. This is relevant for interventions within styles such as Traditional Chinese Medicine, where the broad diversity of approaches requires careful identification of where and when the treatment parameters were developed. Where consensus methods, expert clinical panels, practitioner surveys or some combination of sources have been used to define the treatment protocol, it is recommended that full details of the methodology be given. Literature and other sources should be provided where relevant, in order that others can replicate the trial by consulting these source(s) and/or developmental methods on which treatment was based. Authors are encouraged to reference published works that are easily obtainable, such as a book or journal article. If the reference is a thesis, non-published work, written material only available in a different language from the journal article, or a verbal communication, authors are encouraged to present or summarise the information in an appendix or make it otherwise generally available (e.g. on a website). For fully individualised trials where the goal is to have representative practitioners who are encouraged to practise as they normally do, it is appropriate to specify the selection process for the practitioners, providing details of criteria for their inclusion. It is important to note that where details of the intended intervention are defined in advance, it is possible that what was actually administered may have differed. In such cases, precise details of the treatments that were provided are also necessary.

EXAMPLES

- (A) This study employed a style of Japanese acupuncture developed by Shima and Chace (ref) and Manaka (ref), and follows the Japanese acupuncture training curriculum at the New England School of Acupuncture. In comparison with typical traditional Chinese medicine (TCM)

acupuncture, Japanese acupuncture uses smaller needles and inserts needles less deeply and with less manipulation. (ref) For these reasons, we believed Japanese acupuncture would be less invasive than TCM and thus better received by our adolescent population. Japanese acupuncture has been shown to be effective in treating certain pain conditions. (ref) The specific acupuncture protocols employed in this study are briefly described below and discussed in greater detail in a companion paper (ref).²⁵

- (B) We based point selection on individualised Western acupuncture techniques by using a list of points previously reported as being effective in neck pain (refs) and by reaching a consensus according to our own clinical and teaching practice. (ref) The specific points for each individual were defined at each treatment session, depending on the patient's pain distribution and palpation of the neck and thorax to determine *ah shi* points or local tender points, for acupuncture. At least one distal point was used. Point location and depth of insertion were as described in traditional texts (ref).²⁶
- (C) We developed the treatment strategies for acupuncture and minimal acupuncture in a consensus process with three acupuncture specialists (names provided) representing two major German societies for medical acupuncture: the German Medical Acupuncture Association (Deutsche Ärztegesellschaft für Akupunktur) and the International Society for Chinese Medicine (Societas Medicinae Sinensis). The first step involved three specialists (names provided) and the study team developing a proposal, which was followed by a discussion including more than 30 acupuncture experts from both acupuncture societies. The final intervention strategies were defined by the above-mentioned three specialists together with the study team and subsequently were communicated to the external advisors.²⁷

ITEM 1C: EXTENT TO WHICH TREATMENT WAS VARIED

EXPLANATION

The extent to which the treatment was individualised, both between patients and between practitioners, should be described. Trial protocols choose one of the three broad levels of individualisation, ranging from none at all (all patients receiving the same treatment at all sessions), through partially individualised treatments (e.g. use of a fixed set of points to be combined with a set of points to be used flexibly), to fully individualised treatment protocols within which each patient receives a unique and evolving diagnosis and treatment. Additionally, the practitioners may have to apply a standardised theoretical framework or may be allowed to apply their own. Many styles of acupuncture, whether based on traditional theories

TABLE 2 Checklist of CONSORT items and the non-pharmacological trials extension to CONSORT (with Standards for Reporting Interventions in Clinical Trials of Acupuncture (STRICTA) extending CONSORT item 5 for acupuncture trials)

Session/Topic	Item number	CONSORT 2010 statement* – checklist item ¹⁰ Describe	Additional items from the non-pharmacological trials extension to CONSORT ¹⁴ Add
Title and abstract	1a	Identification as a randomised trial in the title	In the abstract, description of the experimental treatment, comparator, care providers, centres and blinding status
	1b	Structured summary of trial design, methods, results and conclusions; for specific guidance, see CONSORT for abstracts ^{58,59}	
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale	
	2b	Specific objectives or hypotheses	
Methods			
Trial design	3a	Description of trial design (eg, parallel, factorial) including allocation ratio	
	3b	Important changes to methods after trial commencement (eg, eligibility criteria), with reasons	
Participants	4a	Eligibility criteria for participants	When applicable, eligibility criteria for centres and those performing the interventions
	4b	Settings and locations where the data were collected	
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	Precise details of both the experimental treatment and comparator—see Table 1 above for details
Outcomes	6a	Completely defined prespecified primary and secondary outcome measures, including how and when they were assessed	
	6b	Any changes to trial outcomes after the trial started with reasons	
Sample size	7a	How sample size was determined	When applicable, details of whether and how the clustering by care providers or centres was addressed
	7b	When applicable, explanation of any interim analyses and stopping guidelines	
Randomisation			
Sequence generation	8a	Method used to generate the random allocation sequence	When applicable, how care providers were allocated to each trial group
	8b	Type of randomisation; details of any restriction (eg, blocking and block size)	
Allocation concealment	9	Mechanism used to implement the random allocation sequence (eg, sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	
Blinding	11a	If done, who was blinded after assignment to interventions (eg, participants, care providers, those assessing outcomes) and how	Whether or not those administering co-interventions were blinded to group assignment
	11b	If relevant, description of the similarity of interventions	If blinded, method of blinding and description of the similarity of interventions
Statistical methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	When applicable, details of whether and how the clustering by care providers or centres was addressed
	12b	Methods for additional analyses, such as subgroup analyses and adjusted analyses	

TABLE 2 continued Checklist of CONSORT items and the non-pharmacological trials extension to CONSORT (with Standards for Reporting Interventions in Clinical Trials of Acupuncture (STRICTA) extending CONSORT item 5 for acupuncture trials)			
Session/Topic	Item number	CONSORT 2010 statement* – checklist item ¹⁰ Describe	Additional items from the non-pharmacological trials extension to CONSORT ¹⁴ Add
Results			
Participant flow (a diagram is strongly recommended)	13a	For each group, the numbers of participants who were randomly assigned, received intended treatment and were analysed for the primary outcome	The number of care providers or centres performing the intervention in each group and the number of patients treated by each care provider or in each centre
	13b	For each group, losses and exclusions after randomisation, together with reasons	
Implementation of intervention			Details of the experimental treatment and comparator as they were implemented
Recruitment	14a	Dates defining the periods of recruitment and follow-up	
	14b	Why the trial ended or was stopped	
Baseline data	15	A table showing baseline demographic and clinical characteristics for each group	When applicable, a description of care providers (case volume, qualification, expertise, etc) and centres (volume) in each group
Numbers analysed	16	For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups	
Outcomes and estimation	17a	For each primary and secondary outcome, results for each group and the estimated effect size and its precision (eg, 95% CI)	
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	
Ancillary analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing prespecified from exploratory	
Harms	19	All important harms or unintended effects in each group; for specific guidance see CONSORT for Harms ⁶⁰	
Discussion			
Limitations	20	Trial limitations, addressing sources of potential bias, imprecision and, if relevant, multiplicity of analyses	
Generalisability	21	Generalisability (external validity, applicability) of the trial findings	Generalisability (external validity) of the trial findings according to the intervention, comparators, patients and care providers and centres involved in the trial
Interpretation	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	In addition, take into account the choice of the comparator, lack of or partial blinding, unequal expertise of care providers or centres in each group
Other information			
Registration	23	Registration number and name of trial registry	
Protocol	24	Where the full trial protocol can be accessed, if available	
Funding	25	Sources of funding and other support (eg, supply of drugs); role of funders	

*We strongly recommend reading this statement in conjunction with the CONSORT 2010 explanation and elaboration¹¹ for important clarifications on all the items. If relevant, we also recommend reading CONSORT extensions for cluster randomised trials,⁶¹ non-inferiority and equivalence trials,⁶² herbal interventions,⁶³ and pragmatic trials.¹⁶ Moreover, additional extensions are forthcoming. See <http://www.consort-statement.org> (accessed April 2010), for those and also for up-to-date references relevant to this checklist.

or westernised concepts such as trigger points, are individualised in routine practice. Trials that are more pragmatic²⁸ in their aim, and designed to replicate routine settings and patient groups, place more of an emphasis on fully individualised treatment. In such cases standardisation may consist of a protocol that instructs practitioners to provide treatments as they normally do. Trials that are more explanatory (mechanistic) in their aim tend to need a tighter definition of specific components in order to minimise variation across treatments.

EXAMPLES

- (A) Each patient received individualised acupuncture treatments that focused on specific needs and symptoms that the individual was experiencing. The rationale for this intervention was to test acupuncture as it is typically performed in practice. Point selection was based on the general principles of acupuncture and Traditional Chinese Medicine (ref). The treatment was modified over the course of the study to accommodate the individual's changing pattern of pain, sleep or other health issues.²⁹
- (B) The verum points consisted of obligatory points and additional points individually chosen by the physicians on the basis of traditional Chinese medicine diagnosis for syndromes (including tongue diagnosis), acupuncture channels related to the individual headache area and *ab shi* points (locus dolendi points).³⁰
- (C) The acupuncture protocol was based on the concept of adequacy of treatment, (ref) survey results, (ref) a consensus workshop and recommendations from traditional Chinese protocols. We did not allow moxibustion, cupping, herbs or electroacupuncture. For each individualised treatment session between 6 and 10 acupuncture points from 16 commonly used local and distal points were selected. Local points were SP9, SP10, ST34, ST35, ST36, *Xiyuan*, GB34 and trigger points. Distal points were LI4, TH5, SP6, Liv3, ST44, KI3, BI60 and GB41.³¹

STRICTA Item 2: Details of Needling

ITEM 2A: NUMBER OF NEEDLE INSERTIONS PER SUBJECT PER SESSION (MEAN AND RANGE WHERE RELEVANT)

EXPLANATION

It is recommended that the reporting of this item should include a total of needle insertions per subject per session. This item is relevant to all designs of randomised controlled trials, from pragmatic to explanatory. For more explanatory designs where a formula of points is prescribed, the number

of needle insertions should be reported as a simple total. For more pragmatic designs, with individualised treatments, the mean and range should be reported. Clearly, full details of individualised treatment cannot be reported in every section of item 2 below. However, each item should be considered and as much information given as possible.

EXAMPLES

- (A) The protocol allowed for up to 10 treatments per patient, the precise number being agreed between patient and practitioner. A total of 1 269 treatments were provided, an average of 8.6 treatments per patient (range 1–10) and 9.6 needles per treatment (range 6–12). See (table) for variations between practitioners.³²
- (B) Disposable stainless steel needles (0.2×50 mm, Seirin) were inserted into the skin over the trigger point to a depth of 10–30 mm, appropriate to the muscle targeted, attempting to elicit a local muscle response using the 'sparrow pecking' technique. After the local twitch response was elicited or a reasonable attempt made, the needle was retained for a further 10 min. The mean number of insertions was 3.3.³³
- (C) In the real acupuncture group, the acupuncture points *Hegu* (LI4), *Jiache* (ST6), *Xiaguan* (ST7) and *Yifeng* (SJ17) were used unilaterally on the tooth extraction side.³⁴

ITEM 2B: NAMES (OR LOCATION IF NO STANDARD NAME) OF POINTS USED (UNI-/BILATERAL)

EXPLANATION

The point descriptions in the seminal classic texts, such as the *Huangdi Neijing* (Inner Canon of the Yellow Emperor) are rare and vague. The depiction of acupuncture points in relation to precise anatomical structures dates back only 100 years. Since the mid-1950s a process of standardisation has been taking place, and the acupuncture point descriptions based on anatomical locations and proportional cun measurement systems have served as a blueprint for many Western translations. It should be noted that these locations have not been universally adopted. Given this historical context, it remains important to know which acupuncture points have been used in clinical trials, with as accurate descriptions as possible of the location of these points, and, where relevant, the method used to identify the points.

The specific point locations used in treatments where standardised should be described by an accepted nomenclature (e.g. GB21)³⁵ or by an anatomical location where there is no accepted name. Whether the needles are inserted unilaterally or bilaterally should be stated. For protocols with partially individualised prescriptions, list any prescribed essential or optional points, and describe (in the Results section) both the points used at every visit, and all the points used on an ad hoc

basis. If the list is extensive, the most commonly used points (with percentages) should be reported. Where protocols specify using fully individualised point prescriptions, authors should consider the best way to report the points used—for example, by listing all points across all subjects or by identifying the most commonly used points if the list is extensive.

EXAMPLES

- (A) We based the acupuncture point selections on TCM meridian theory to treat knee joint pain, known as the ‘Bi’ syndrome. These points consisted of five local points (*Yanglingquan* (Gall bladder meridian point 34), *Yinlingquan* (Spleen meridian point 9), *Zusanli* (Stomach meridian point 36), *Dubi* (Stomach meridian point 35) and extra point *Xiyan*) and four distal points (*Kunlun* (Urinary bladder meridian point 60), *Xuanzhong* (Gall bladder meridian point 39), *Sanyinjiao* (Spleen meridian point 6) and *Taixi* (Kidney meridian point 3)) on meridians that traverse the area of pain (refs). The same points were treated for each affected leg. If both knees were affected, nine needles were inserted in each leg.²¹
- (B) The verum acupuncture (VA) group received acupuncture with a 0.25×40 mm stainless steel needle (Asia-Med, Munich, Germany) at LI4, which is situated between the first two metacarpal bones on the dorsal side of both hands at the top of the muscle belly (figure provided).³⁶
- (C) The most frequently treated local points were BL23, BL25, GB30, DU4, BL26 and the extra point *Huatuojiaji* (table provided)... The most frequently treated distant points were BL40, Kid3, GB34, BL60, SI3 and DU20. In most cases, 8–12 local points and 4–6 distant points were used. Physicians used additional acupuncture points in 565 of the treatment sessions. The most frequently used additional local points were LI4, ST40, BL17, SP6 and ST36.²⁷

ITEM 2C: DEPTH OF INSERTION, BASED ON A SPECIFIED UNIT OF MEASUREMENT OR ON A PARTICULAR TISSUE LEVEL

EXPLANATION

The depth of insertion should be expressed using the Chinese measurement of the *cun*; as anatomical depth—for example, of subcutaneous tissue, fascia, muscle or periosteum; or in millimetres. For some trials, the protocol might specify the angle and direction of insertion together with depth of insertion, in which case these should also be reported.

EXAMPLES

- (A) All needle placements were performed by an experienced acupuncturist at a premarked depth of 4 mm from the tip of the needle.³⁷

- (B) The depth of needle insertion varied with thickness of the skin and subcutaneous fatty tissues at the site of the acupuncture points; it was usually 1–1.5 cm.³⁸
- (C) Shallow and light needling stimulation (1–2 mm) using fine needles (0.18–0.16 mm) inserted with the aid of insertion tubes was emphasised. Points were needled at a 10–20° angle with a two-hand needling technique, generally in the direction of the flow of the channel.³⁹

ITEM 2D: RESPONSE SOUGHT (E.G. DE QI OR MUSCLE TWITCH RESPONSE) EXPLANATION

If the study protocol requires that specific responses to needling be elicited—for example, the *deqi* sensation in traditional Chinese acupuncture, the muscle twitch in trigger point treatment or muscle contraction in electroacupuncture, these elicited responses should be reported. Where relevant, the authors should differentiate between the responses required in the protocol and those actually obtained (which should be reported in the Results section).

EXAMPLES

- (A) The trigger point group received treatment at trigger points. The correct application of the technique requires experience in palpation and localisation of taut muscle bands and myofascial trigger points. Precise needling of myofascial trigger points provokes a brief contraction of the muscle fibres. This local twitch response must be elicited for successful therapy but it may be painful and post-treatment soreness is frequent.³³
- (B) In contrast with TCM-style acupuncture, we did not employ vigorous manipulation in order to elicit a strong *deqi* sensation (defined as a feeling of heaviness around the acupuncture point). (ref) Practitioners focused instead on feeling the response to stimulation as an ‘echo’ sensation experienced on the receiving hand, while the active hand performed the actual needling. Attention was placed on reactivity or change in diagnostic areas, especially the pulse and abdomen. By carefully assessing changes in palpatory findings, the treatment was adjusted continuously based on the patient’s response. Before needling, the ‘live’ points were identified by palpation—that is, subtle changes at the skin level, or upon touch or pressure, for that particular patient.³⁹

ITEM 2E: NEEDLE STIMULATION (E.G. MANUAL, ELECTRICAL)

EXPLANATION

Needle stimulation techniques, where used, should be clearly described for all points. For manual stimulation, such techniques include lifting, thrusting or rotating the needle to

manipulate the *deqi* sensation. For electrical stimulation, the current, amplitude and frequency settings should be recorded.

EXAMPLES

- (A) This mode of (manual) stimulation was provided via the acupuncture needles, which were placed in the premarked depth at the marked sites. The needle was rotated by an experienced acupuncturist with the index finger and thumb in an alternating clockwise and counter-clockwise fashion at the rate of three to five rotations per second.³⁷
- (B) Electrical stimulation was given to the anterior part of the knee for 10 min and then 10 min for the posterior part using a battery-operated, four-channel, 'AS Super 4' Electrostimulator (RDG Medical, Surrey, UK) which generated low-frequency, square-wave (2–10 Hz) pulses of 1 ms duration for 10 min. (ref) In both groups, the apparatus was attached to needles at the two *Xiyan* points, SP9 and GB34, and BL40 and BL57. Electrical stimulation was delivered at 6 Hz at a constant current. Voltage was set at a level just above the pain threshold.³⁸

ITEM 2F: NEEDLE RETENTION TIME

EXPLANATION

Needle retention times should be reported as either a standard or a mean and range. Authors should make it clear that they are reporting the time elapsed between the insertion and removal of needles (retention time) and distinguish it from treatment time, which may include other procedures such as history taking, discussion and preparation for treatment.

EXAMPLES

- (A) Each participant was treated bilaterally and had a total of six needles inserted for the duration of the treatment. A draining technique was used and the needles were left for a period of 30 min. The practitioner returned to check on the participant at regular intervals during the intervention.⁴⁰
- (B) Needles were withdrawn immediately for tonification and retained for up to 20 min for the evens technique.²³
- (C) Therapists allow 25 (minimum) to 35 (maximum) minutes between insertion of the last needle and cessation of treatment and during that time they are to revisit the needles as appropriate.⁴¹
- (D) The patients in group A were dry needled for a few seconds. For trigger point inactivation by dry needling ... it is especially important not to apply too strong a stimulus because this may produce a flare-up of the patient's symptoms.⁴²

ITEM 2G: NEEDLE TYPE (DIAMETER, LENGTH AND MANUFACTURER OR MATERIAL)

EXPLANATION

Details should be given of the types of needles used, including the diameter and length as well as the manufacturer and/or the material. This information is of importance since the effect of different metals or needle sizes on the body is not known. For trials using a variety of different types of needles, the ranges of diameters and lengths as well as types of material should be reported.

EXAMPLES

- (A) Seirin 36-gauge 2.5 inches long unused sterile L-type needles were used for the study.³⁷
- (B) The verum acupuncture group received acupuncture with a 0.25×40 mm stainless steel needle (Asia-Med) at LI4.³⁶

STRICTA Item 3: Treatment Regimen

ITEM 3A: NUMBER OF TREATMENT SESSIONS

EXPLANATION

The planned number of sessions and frequency of treatment should be clearly documented. The actual number of treatments received by participants should be reported in the Results section. If there is variation between patients, then the mean and range should be reported.

EXAMPLES

- (A) The true acupuncture (experimental) group underwent 26 weeks of gradually tapering treatment according to the following schedule: 8 weeks of two treatments per week followed by 2 weeks of one treatment per week, 4 weeks of one treatment every other week and 12 weeks of one treatment per month.²¹
- (B) In all groups, participants were asked to attend treatment sessions twice weekly for 12 weeks (24 treatments). We considered participants who attended 80% or more (≥19 of 24) of acupuncture sessions to have completed a full course of treatment.⁴³

ITEM 3B: FREQUENCY AND DURATION OF TREATMENT SESSIONS

EXPLANATION

The frequency and duration of sessions should be documented, with mean and range to be reported where there is variation across patients. Any variation in frequency of treatment (e.g. if subjects are to be treated twice weekly in the first 2 weeks then once a week for the next 6 weeks) should be clearly reported.

EXAMPLE

(A) Acupuncture was administered a maximum of eight times, twice during each of the first 3 weeks and once during each of the following 2 weeks, for 30 min at each session. One month after this series of treatments had been completed and evaluated, the patients were offered a maximum of two follow-up treatments of the same kind, 1 week apart.⁴⁴

STRICTA Item 4: Other Components of Treatment

ITEM 4A: DETAILS OF OTHER INTERVENTIONS ADMINISTERED TO THE ACUPUNCTURE GROUP (E.G. MOXIBUSTION, CUPPING, HERBS, EXERCISES, LIFESTYLE ADVICE)

EXPLANATION

Additional components of treatment refer to the auxiliary techniques, prescribed self-treatment and lifestyle advice provided by the practitioner. All additional components, whether carried out by the practitioner or patient and whether integral or adjunctive to the acupuncture needling, should be described clearly. For acupuncture-related interventions, such as moxibustion or cupping, detail should be provided equivalent to that recommended for acupuncture needling. If the protocol specifies the options of prescribed self-help treatments such as Qigong or muscle stretching exercises and/or lifestyle advice such as dietary changes based on acupuncture-related diagnostic criteria, then these too must be reported. The frequency with which the advice was given, and participants' compliance with this advice, should be reported. 'Other components of treatment' should be distinguished from 'co-interventions'—that is, interventions that are provided additionally to both groups, which should be fully reported as described in STRICTA item (6b) below.

EXAMPLES

- (A) In addition to needling, moxibustion or thermal stimulation of the acupoints was used forming very fine wool of mugwort (*Artemisa vulgaris*) into minute, thread-size punks (*Okyu*) and placing them on a thin layer of a herbal cream (*Shiunko*). The moxa was lit with an incense stick and the process was repeated several times until warmth was felt by the patient.³⁹
- (B) Following application of the studs, patients were instructed to apply pressure to the stud by making small circular movements with the fingers of the opposite hand, 2–3 cycles/s for 1–2 min/point. As is typical for self-administered acupressure, patients were encouraged to apply acupressure this way on waking, in the early afternoon and during any exacerbation of symptoms. Initial instruction was provided verbally, at which time patients were asked to confirm their

understanding by demonstrating the procedure. Patients also were given easy-to-read written materials describing the acupressure procedure.⁴⁵

- (C) Chinese herbal medicine was to be taken three times per day over a period of 6 weeks and parallel to acupuncture treatment ... All herbs used in the present study were imported from China by a single TCM herbal medicine import company (Sinores, Lueneburg, Germany) ... All herbs were prepared in dried, minced pieces and then sealed in generic paper sachets by a pharmacist in order to render the herbal formulation non-identifiable for patients ... In addition to the basic formula, every patient received a second additional formula tailored to his or her individual TCM diagnosis.⁴⁶

ITEM 4B: SETTING AND CONTEXT OF TREATMENT, INCLUDING INSTRUCTIONS TO PRACTITIONERS, AND INFORMATION AND EXPLANATIONS TO PATIENTS

EXPLANATION

The setting and context of treatment can also provide important additional components to treatment.⁴⁷ Context includes instructions to practitioners that might modify their normal practice—for example, prescribing or proscribing explanations to patients about their diagnosis. For patients, the context includes the information they have been given about the trial that might be expected to modify outcomes. Therefore, the information that the patient receives regarding the treatment and control intervention should be reported, including any relevant wording on consent forms and information leaflets designed to influence beliefs or expectations. For example, describing a sham acupuncture control as 'a type of acupuncture' may have a different effect on outcome than saying it is 'not acupuncture, but will involve a similar experience to acupuncture'.

EXAMPLES

- (A) The first acupuncturist was the 'diagnosing acupuncturist' (DA), whom the patient saw for the initial consultation, and before and after each treatment. A full case history was taken by the DA, together with tongue and pulse examination, to arrive at an individual diagnosis in accordance with the principles of TCM, with an additional lesser emphasis on Five Element Acupuncture (refs). Although all patients in the study had irritable bowel syndrome, this corresponded to a wide range of TCM patterns, making individual diagnosis essential. Dietary and lifestyle advice (important in treatment according to TCM principles) was given to all patients by the DA, who then selected acupuncture points. The second 'treating acupuncturist' (TA) opened

the randomisation envelope, and for the duration of the study remained the only individual aware of treatment allocation. The TA carried out the treatment—either according to instructions issued by the DA or using sham points, depending on the randomisation.⁴⁸

- (B) Patients were informed about acupuncture and minimal acupuncture in the study as follows: ‘in this study, different types of acupuncture will be compared. One type is similar to the acupuncture treatment used in China. The other type does not follow these principles, but has also been associated with positive outcomes in clinical studies’.²⁷

STRICTA Item 5: Practitioner Background

ITEM 5: DESCRIPTION OF PARTICIPATING ACUPUNCTURISTS (QUALIFICATION OR PROFESSIONAL AFFILIATION, YEARS IN ACUPUNCTURE PRACTICE, OTHER RELEVANT EXPERIENCE)

EXPLANATION

Characteristics of the acupuncturists providing treatment should be reported, including qualification or affiliation, years in acupuncture practice, as well as any other experience that may be relevant to the trial. Relevant differences (if any) in the qualification, training and experience of the participating acupuncturists should be highlighted. The recent survey of authors of acupuncture trials and reviews reinforced the need for these characteristics to be reported well,¹² especially since the actual level of reporting has historically been poor.¹³ In trials where different acupuncturists provide treatment to different treatment arms, the background of both groups should be reported. The eligibility criteria for acupuncturists should be explained, as these will influence generalisability of the trial results. Where there are known to be potential variations between practitioners, selecting a random sample of practitioners will reduce expertise bias and help improve the applicability of the results.⁴⁹

EXAMPLES

- (A) Physicians had a median of 350 h (range 140–2508 h) of acupuncture training before participating in the trial; 33 (73%) had the B-diploma. Seventeen (17; 38%) trial physicians taught acupuncture in accredited postgraduate courses. The physicians had used acupuncture in their practices for an average of 11 years (median 10, range 0–25) and had treated 346 patients (range 22–1200) with acupuncture in the year before the trial. Forty-one physicians (92%) indicated that they frequently or always make a Chinese syndrome diagnosis before starting treatment.²⁷

- (B) Eight US-trained and licensed acupuncturists with a median of 10 years of experience (range 4–18 years) provided study treatments in their private offices. One investigator trained the acupuncturists in the study procedures to increase their comfort with delivering all four treatments and monitored compliance with the protocol throughout the study.⁴³

- (C) Of the 11 midwives participating in the study, six had been taught acupuncture for midwives at the Norwegian School of Acupuncture/NFKA. These six gave real and false acupuncture, whereas the others, who had been trained in acupuncture by the six, were allowed only to give false acupuncture.⁵⁰

STRICTA Item 6: Control or Comparator Interventions

ITEM 6A: RATIONALE FOR THE CONTROL OR COMPARATOR IN THE CONTEXT OF THE RESEARCH QUESTION, WITH SOURCES THAT JUSTIFY THE CHOICE(S)

EXPLANATION

The rationale for choice of control or comparator should be presented and justified in relation to the research question and the methodology. In studies in which a group receiving acupuncture is compared with another group, the control or comparator can be sham acupuncture, usual care, an active treatment, a waiting list or no treatment. Whereas ‘control’ is sometimes used for a group that receives no intervention, the term ‘comparator’ may be more appropriate for an active intervention, such as physiotherapy, for which the intended action of the comparator is expected to be therapeutic. If using an acupuncture-like control in a participant-blinded trial then one of the following terms: active acupuncture control, penetrating needle control or non-penetrating sham needling control might be helpful descriptors. Control procedures involving invasive or non-invasive sham needling techniques may be therapeutically active, evoking neurophysiological and/or localised immune and circulatory responses. The extent to which sham acupuncture needling, whether penetrating or not, might elicit acupuncture-specific physiological mechanisms is not known, and is in part a consequence of our lack of knowledge of the mechanism(s) of true acupuncture. There are also variations in assumptions about the precision required for point location, as for some clinicians and investigators acupuncture points are considered as areas of re-activity rather than points of action. Such assumptions have a bearing on the integrity of the sham as an appropriate control. Some non-needling control procedures can be assumed to be physiologically inert, such as an inactivated transcutaneous electrical nerve stimulation machine; however, these procedures may not have the same total psychophysiological credibility as acupuncture, thereby compromising the interpretation of the results. Sources that led

to the choice of control, such as literature or expert opinion, should also be reported and referenced. The author should reference prior work that supports the use of the selected comparator, such as from the conclusion of a systematic review or from another randomised controlled trial.

EXAMPLES

- (A) 'Sham' acupuncture points were chosen from three different areas on the body (the anterior thigh distally, the posterior thigh and the lateral aspect of the lower back), which do not correspond to recognised acupuncture points and are deemed to have no therapeutic value.⁴⁸
- (B) International guidelines suggest that the best package of care for this patient group is one that includes patient education, advice and exercise (ref) Randomised clinical trials consistently show the benefit of exercise for knee pain in older adults (refs). Recent studies also highlight the need to provide adequate instruction, feedback and practice in order to ensure that the key muscle groups around the knee, such as the quadriceps, are activated (ref). The European League Against Rheumatism recommendations have recently been updated and in particular, advocate exercise for knee pain related to osteoarthritis (ref). In line with this evidence base, the current trial was designed so that all participants receive a package of care which includes education, advice and exercise.⁴¹
- (C) For this study a special 'placebo needle' was designed by Streitberger. The needle body is not fixed inside the copper handle. Its tip is blunt and when it touches the skin, a small pricking sensation is felt by the patient, simulating the puncture of the skin. The handle of the needle moves over the needle, the needle is shortened. Patients 'see' the needle moving inside their body ... This needle was tested in 60 volunteers and proved to be sufficiently credible to be used in our clinical trial as a control (ref).⁵¹

ITEM 6B: PRECISE DESCRIPTION OF THE CONTROL OR COMPARATOR. IF SHAM ACUPUNCTURE OR ANY OTHER TYPE OF ACUPUNCTURE-LIKE CONTROL IS USED, PROVIDE DETAILS AS FOR ITEMS 1–3 ABOVE

EXPLANATION

A precise description of the components of the control or comparator should be presented. If the control treatment is an acupuncture-like intervention, such as a form of sham acupuncture, then it should be specified whether the sham is invasive (penetrating the skin) or non-invasive (non-penetrating). The theoretical basis, needling details and regimen of an acupuncture-like control need to be reported in the same way as is set out in STRICTA items 1–3 above.

The lack of a worldwide consensus on the location and size of acupuncture points reinforces the importance of accurate documentation of the sham points actually used, their precise location and the method used to locate them. If usual care or another active treatment is the comparator, all the components should be reported in full detail. This will enable readers to compare usual care as provided in the trial with what is usually provided to participants in another setting. Where usual care is also provided to those receiving acupuncture, these data will also allow readers to compare the intensity of usual care in the comparator arm with that of the experimental arm. If it is a waiting list arm, then the period of waiting needs to be specified. While precise description of the control or comparator is fairly straightforward in principle, the more complex the components, the more care is required to specify them precisely.

EXAMPLES

- (A) Acupuncturists inserted two needles into the sham points in the abdominal area, approximately 3 cm lateral to and slightly above the umbilicus bilaterally and then immediately applied two pieces of adhesive tape next to the needles. In addition, they tapped a mock plastic needle guiding tube on the surface of each of the nine true points in the leg to produce some discernible sensation and then immediately applied a needle with a piece of adhesive tape to the dermal surface, without needle insertion, of each point for a total of 20 min. The sham acupuncture procedure was given on the same schedule as the experimental group and used the same active needle placements, except actual insertion did not occur at these nine points. Although electrical stimulation did not occur, a mock transeletrical stimulation unit (which emitted a sound and possessed a blinking light) was attached to the sham needles at the knee. To facilitate blinding, we used screens in both treatment and sham groups which were placed below the abdomen to prevent participants from actually observing the true or sham procedures at the knee area but to allow them to observe the procedure being performed in the abdomen area.²¹
- (B) In each session, at least five out of 10 predefined distant non-acupuncture points (ref) were needled bi-laterally (at least 10 needles) and superficially using fine needles (ie, minimal acupuncture). 'Deqi' and manual stimulation of the needles were avoided. All acupuncturists received oral instructions, a video-tape and a brochure with detailed information on sham acupuncture.⁵²
- (C) Conservative therapy involved 10 visits to practitioners with consultation and a prescription for diclofenac, up to 150 mg/day, or rofecoxib, 25 mg/day, as needed, until week 23.⁵³

(D) Patients received the same treatment as in the standard group but in addition did stabilising exercises modified because of the pregnancy. (refs) The training programme started by emphasising activation and control of local deep lumbopelvic muscles. Training of more superficial muscles in dynamic exercises to improve mobility, strength and endurance capacity was gradually included. Patients received treatments individually for a total of 6 h during 6 weeks. They were told to integrate the exercises in daily activities and to exercise in short sessions on several occasions during the day.⁵⁴

Discussion

This revised STRICTA statement has been designed to help improve the reporting of interventions in clinical trials of acupuncture, with the intention that it will help authors of acupuncture trials provide readers with a clear, accurate and transparent account of their acupuncture protocols as well as their control and/or comparator procedures. In addition to revising the STRICTA checklist, we have improved the explanations of each item and provided examples of good reporting. To enhance awareness, endorsement and adherence, the revised STRICTA statement has been developed as an extension to CONSORT. Authors of clinical trials of acupuncture should use the STRICTA recommendations for the acupuncture intervention (item 5 in the CONSORT 2010 statement) in conjunction with the other 25 items of the checklist in the main CONSORT guidelines.^{10,11} The extension to CONSORT for non-pharmacological interventions is also highly relevant to acupuncture trials.^{14,15} There are other extensions to CONSORT that may be relevant, depending on the type of trial design, including extensions for cluster trials, equivalence and non-inferiority trials and pragmatic trials, and the reporting of abstracts and of harms (e.g. adverse events) associated with the intervention. The most recent versions of all CONSORT guidance documents can be found on the CONSORT website (<http://www.consort-statement.org>, accessed 16 April 2010).

A complete, accurate and transparent trial report facilitates dissemination, interpretation, translation and replicability. There continues to be a need for better reporting generally, as has been highlighted in a recent study of what is missing from descriptions of treatments in trials and reviews.⁵⁵ The authors found that elements of the intervention were missing in half of the published articles that they reviewed, giving insufficient detail—for example, with practitioners unable to use the treatments as described and researchers unable to replicate studies. This finding is similar to that from a review of authors of acupuncture trials.¹² Improved reporting reduces reader ambiguity in interpretation, is likely to increase credibility and application of the results by providing better evidence on which to base decisions on patient care.

Reporting guidelines do help to improve the quality of reporting randomised trials,⁵⁶ although it is difficult to observe their maximal benefit because too few journals endorse reporting guidelines⁵⁷ and fewer adhere to them.⁵⁷ To maximise this potential, we encourage journals to unambiguously endorse the revised STRICTA reporting guidelines. This can be most readily achieved by updating journal Instructions to Authors, thereby alerting prospective authors. In addition, we encourage journals to implement strategies to improve author adherence to reporting guidelines. These efforts might also help peer reviewers and journal editors in deliberating the merits of such trials.

Members of the STRICTA Revision and Steering Groups

The Steering Group comprised DA and DM (CONSORT), HM and RH (STRICTA) and YL and TW (Chinese Cochrane Centre). The STRICTA Revision Group, who participated in the consensus-building workshop in Freiburg, comprised the six members of the Steering Group and Stephen Birch, Isabelle Boutron, Mark Bovey, Yutong Fei, Joel Gagnier, Sally Hopewell, Val Hopwood, Susanne Jena, Klaus Linde, Jianping Liu, Kien Trinh, Emma Veitch, AW and Hitoshi Yamashita.

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COMPETING INTERESTS

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In order to encourage dissemination of the STRICTA statement, this article is freely accessible on the AJACM website (<http://www.acupuncture.org.au/ajacm.cfm>) and is also published in Acupuncture in Medicine, Journal of Chinese Integrative Medicine, Journal of Alternative and Complementary Medicine, Journal of Evidence Based Medicine, Medical Acupuncture, and PLoS Medicine. The authors jointly hold the copyright of this article. For details on citing and using the STRICTA guidelines and the CONSORT statement, see http://www.stricta.info/citing_and_using_stricta.htm and <http://www.consort-statement.org/consort-statement/citing-and-using-consort/>, respectively.

AJACM EDITOR'S COMMENT:

As this article is being co-published in different academic journals, the style may not fully comply with the AJACM style. Authors should refer to the AJACM Guidelines for Authors before submitting a manuscript.

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Wen Bing (Warm Diseases) and the 2009 H1N1 Influenza

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ABSTRACT

The epidemiological data of influenza can serve as a basis for the effective use of *wen bing* 温病 theory in the management of the 2009 H1N1 influenza. The long history of Chinese medicine in general and of the *wen bing* school specifically holds much evidence on adapting and responding to changes in the climate, environment and newly emerging diseases. Uncovering and comparing these data and information from Chinese medicine with modern epidemiological ones can perhaps offer another legitimate and valid way of understanding and treating contemporary diseases. Such a methodology may also be another strategy for integrating biomedicine with Chinese medicine. This paper will examine some of the epidemiological features of the 2009 H1N1 influenza and their similarities with the main characteristics of *wen bing* or warm diseases in Chinese medicine. It is suggested that the 2009 H1N1 influenza can be managed from a *wen bing* perspective using a four phase approach.

KEYWORDS *wen bing*, pandemic, H1N1, swine flu, influenza, lingering pathogens, epidemiology.

*I had a little bird
And its name was Enza
I opened the window
And in-flew-Enza*

(An anonymous schoolgirl's poem from the time of
the 1918 H1N1 Spanish Influenza)

Epidemiology of the 2009 H1N1

The 2009 H1N1 (swine flu) is the first influenza pandemic of the twenty-first century. Its rapid spread across the globe has caused considerable panic among health authorities and the general public worldwide.¹ The pandemic raised the spectre of the 1918 Spanish flu, which killed between 20 and 50 million people.²⁻⁵ As of 17 October 2009, the World Health Organization reported 414 000 laboratory-confirmed cases of 2009 H1N1 and nearly 5000 deaths.⁶ The US president declared a national emergency on 23 October 2009 with regard to the H1N1 pandemic.⁷⁻⁹ This reflects the seriousness with which various world governments viewed the situation.

This paper will examine some of the epidemiological features of the 2009 H1N1 influenza with the main characteristics of

wen bing 温病 or warm diseases in Chinese medicine (CM). Some epidemiological data will be used to underscore the theoretical foundations and practice of *wen bing*. It is suggested that the 2009 H1N1 influenza can be managed from a *wen bing* perspective using a fourfold management approach.

Influenza – warm diseases

Influenza is categorised in CM as an exogenous warm disease or *wen bing*; the 2009 H1N1 virus falls into the same classification.¹⁰⁻¹² However, the treatment of such diseases is based on the pattern differentiation fundamental to the practice of CM. It involves diagnosing from a presenting set of signs and symptoms and treating the condition according to CM principles.

Epidemic diseases have been recognised by CM physicians since the Han Dynasty, as evidenced in the *Shang Han Lun* 伤寒论 of Zhang Zhong Jing 张仲景 (150–219 CE), a text that predates the biomedical appreciation of epidemic by several hundred years.^{11,13} The Chinese medical theory of epidemic diseases, however, was developed by Wu You Xing 吴有性 (1582–1652), who proposed that such diseases were caused

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by pestilence qi or *li qi* 疠气, and expanded by various *wen bing* physicians through the centuries.¹¹⁻¹² The development of various schools of CM practice is a direct recognition that diseases change over time and space. In the time of Zhang Zhong Jing and his contemporaries, cold pathogen was the main theoretical focus in northern China. The major cause of diseases came to be seen as warm pathogen by the sixteenth century, an approach that was dominant in central and southern China. Such a shift in perspective nevertheless makes use of the same CM principles. While some of the *wen bing* physicians seem to distinguish between warm diseases and pestilence qi, the contemporary CM approach is to treat the two concepts as equivalent.¹² The main reason is that 'pattern identifications and treatment determinations are too similar to those of the four season warm diseases'.¹² Accordingly, in this paper both terms will be used interchangeably.

Warm diseases are characterised by the following:

1. They are caused by warm-heat pathogenic qi, contracted externally through the nose and mouth as opposed to through the skin as taught by Zhang Zhong Jing.
2. They are infectious diseases that can become epidemic under certain conditions, seasonal and geographical, though they are not bound by either. Seasonal influences do, however, play an important role in the rise, spread, virulence and mutability of the diseases. Hence, the warm diseases bear names such as spring warmth 春温, latent summerheat 伏暑, and autumn dryness 秋燥.¹¹⁻¹²
3. They are diseases that penetrate according to a standard rhythm or levels, i.e. through the *wei* 卫 (defensive), *qi* 气, *ying* 营 (nutritive), *xue* 血 (blood). The speed at which a warm disease progresses from one level to another is not necessarily constant, gradual or sequential, as it is predicated on the constitution of the individual and the virulence of the pathogenic qi.
4. Such diseases have special clinical characteristics, one of which is the presence of fever throughout all four stages. Others include cough, sore throat, tiredness, headache, and bodyache.^{11-12,14}

The three key features of warm-heat pathogenic qi are:

1. Symptoms appear very quickly;
2. Heat signs and symptoms often predominate;
3. The hot nature of the pathogenic qi readily injures body fluids and yin.^{11-12,14}

Within clinical settings, CM physicians are likely to note that:

- The onset of the warm disease is acute;
- Heat signs, especially fever, are certainly present at the initial stage;
- Manifestation of the disease changes frequently due to heat injuring body fluids and yin.^{11-12,14-15}

When influenza, including the 2009 H1N1, is examined, the characteristics and features closely resemble those described of warm-heat pathogenic qi above (see Table 1).

TABLE 1 Features of *Wen Bing* Disease and H1N1 2009

Wen Bing	H1N1 2009 virus
Pathogenic qi enters via nose and mouth into the lungs	Virus spreads through coughing or sneezing, eventually settling into the lungs causing respiratory issues
Cough	Cough
Sore throat	Sore throat
Runny nose	Runny or stuffy nose
Tiredness	Fatigue
Fever	Fever
Headache	Headache
Bodyache	Bodyache, myalgia
Chills	Chills
Nausea	Nausea
Vomiting	Vomiting
Diarrhoea	Diarrhoea
Signs and symptoms appear quickly	Acute presentation
Hot nature; yin and body fluids readily consumed	Fever is a key symptom

The Centre for Disease Control and Prevention notes that influenza viruses of all known types, including the 2009 H1N1, are 'spread mainly from person to person through coughing or sneezing by people with influenza. Sometimes people may become infected by touching something – such as a surface or object – with flu viruses on it and then touching their mouth or nose.'¹⁶ The signs and symptoms of influenza are fever, cough, sore throat, runny or stuffy nose, body aches, headaches, myalgia, chills, fatigue, possibly nausea, vomiting and diarrhoea.¹⁷⁻¹⁹

Severity depends on how deeply the pathogen has invaded the body in a given geographical setting and climate. The signs, symptoms and transmission route ascribed to influenzas are strikingly similar to those described by the *wen bing* school 温病派. Thus, the condition that biomedicine calls ‘influenza’ has been identified by the *wen bing* school several hundred years earlier. The treatment methods and strategies used by the *wen bing* school have been and continue to be applied successfully. On looking at historical evidence, Cheng and Leung observed that the 1918 H1N1 pandemic had significantly less impact in China than in the rest of the world. They pointed out that early twentieth-century China was ‘an underdeveloped and closed-door country at that time, and it is not likely that China’s general population used western medicine as the main means of disease treatment. Traditional Chinese medicine would have been the only form that the public relied on’.¹⁰

Cheng and Leung seem to suggest from the epidemiological data that traditional Chinese medicine is just as effective (if not more so) as biomedicine, in treating virulent influenza.¹⁰ Although the authors did not mention the *wen bing* school specifically, this paper asserts the likelihood that the school’s theories and treatment strategies underpinned the CM approach to the 1918 influenza.

The Importance of Zheng Qi

According to the *wen bing* school of thought, warm diseases take the path of least resistance. Individuals with a weak or weakened *zheng qi* 正气 (vital qi, also translated as upright qi) are most likely to be among the casualties.^{11-12,14,20} *Zheng qi* can be damaged and drained away by a poor lifestyle, unbalanced diet, overwork, and emotional upheavals. *Zheng qi* can also be compromised if there is a constitutional weakness, that is, if a person’s *jing* was not strong at birth.²⁰ Epidemiological studies of the 2009 H1N1 appear to support the *wen bing* school in this regard. The World Health Organization reports that the very young, the elderly and the immuno-compromised are subject to attacks of seasonal influenza and these groups are at particular risk of severe development when infected with the 2009 H1N1 virus.¹⁹ In severe cases, most patients needed immediate respiratory mechanical support upon admission to a hospital. From the *wen bing* school’s viewpoint, the organ system that is most severely affected by influenza is the respiratory. Thus, warm pathogen first attacks via mouth and nose, entering into the lungs, causes damage there and then progresses to the stomach and in some cases directly to the pericardium.^{11-12,14,20} The WHO further points out that in severe cases, co-morbidity is commonly present, whether in the form of chronic lung disease or neurological disorders. Two other groups were singled out as at risk, namely, minority and indigenous groups, where poor nutrition, lifestyle and access to healthcare are the key factors. From a *wen bing* perspective,

in all these groups of people, *zheng qi* is already weak and therefore, the body is unable to resist any exogenous pathogen. The *wen bing* perspective suggests that as members of these groups are more likely to suffer from deficient *zheng qi*, they are often already weak and therefore, unable to resist the attack of an external pernicious agent.

The 2009 H1N1 influenza distinguishes itself from seasonal influenza in the relatively high number of apparently healthy and fit young people infected.²¹ However, the appearance of health does not in CM’s view necessarily imply health itself. What dictates health according to CM is the internal constitution of the individual, the strength of the qi and blood, and so forth. The *wen bing* school postulates that previously healthy young people who are infected with the 2009 H1N1 influenza virus probably have weak *Zheng Qi*.

On the other hand, *wen bing*’s pestilence qi can also be overwhelmingly powerful so that even individuals with strong *zheng qi* can succumb to the disease. In such cases, however, these individuals are far more likely to recover from the disease and do so in a shorter time than their weaker counterparts.^{11-12,14} In applying this approach, the *wen bing* school can account for the unusual number of presumably healthy young people who were infected with the 2009 H1N1. The concept of *zheng qi* and its role in resisting exogenous pathogens also explains why in this pandemic, most people only experienced a mild form of the disease, lasting three to five days.¹

With these *wen bing* concepts and epidemiological data in mind, a four-phase CM *wen bing* approach to managing 2009 H1N1 is proposed. The strategy will include tools of CM that are not specifically related to the *wen bing* school.

Managing the 2009 H1N1 Influenza

1. PREVENTION

Zheng qi is pivotal in resisting any exogenous disease. There are several methods for strengthening one’s *zheng qi*.

- (i) Diet: maintain a balance in the various types of food, eat according to the seasons and one’s constitution, avoid overeating, eat up to 70–80% of what is needed, and keep everything in moderation. Cooked food is preferred as it is easier to digest.²²
- (ii) Exercise: workouts, brisk walks, *taijiquan* 太极拳, *qigong* 气功, yoga, slow running, gardening, any physical activity that causes mild sweating and exerts the body’s system will help improve one’s condition and strengthens one’s *zheng qi*.²⁰
- (iii) Stress management: while a little mental and emotional stress can be beneficial, too much of either becomes

detrimental. Over-thinking injures the spleen and sustained emotional upheaval injures the lungs, heart, kidneys and liver.

- (iv) Acupuncture: it is common knowledge in CM that stimulation of the acupuncture point ST 36 *Zusanli* strengthens one's constitution.^{20,23} This can be done daily or for three consecutive days each week. Stimulation can take the form of either needles or 100 moxa cones in each session.²³ Other acupuncture points to consider are CV 6 *Qihai*, CV 4 *Guanyuan* and KI 1 *Yongquan*.²⁰
- (v) CM herbal decoctions: take herbal formulae appropriate to one's constitution for tonification, such as *Bu Zhong Yi Qi Tang* 补中益气汤 (tonify the middle to augment the qi decoction), *Gui Pi Tang** 归脾汤 (restore the spleen decoction), *Si Jun Zi Tang* 四君子汤 (four gentlemen decoction), *Ba Zhen Tang* 八珍汤 (eight treasure decoction), and *Liu Wei Di Huang Wan* 六味地黄丸 (six ingredient pill with rehmannia). However, tonic herbs should be avoided at the first sign of any illness and professional CM advice should be sought. It may also be beneficial to take *Yin Qiao San* 银翘散 (honeysuckle and forsythia powder) occasionally to ensure that no pathogenic qi has a hold in one's body.^{20,24} [*See Editor's Comments on page 29 regarding endangered species]
- (vi) Fumigation: this is a practice that has been used by past *wen bing* physicians. One such formula used in ancient times is called *Tai Yi Liu Jin San* 太乙流金散 (supreme unity flowing gold powder).¹² These days, however, vinegar is the favoured product for fumigating one's abode rather than a complex formula.²⁰

Biomedical physicians are likely to encourage the uptake of vaccination as a preventative measure. Since December 2009, there has been an approved vaccine for adults (single dose) and children (two doses).²⁵ However, from the *wen bing* school's perspective, modern day vaccination itself can be a cause of illness.^{11,26} The intramuscular delivery of the attenuated virus circumvents the exterior defences of the body and enters directly into the interior, into the *qi* level (of the four levels in Ye Tian Shi's 叶天士 diagnostic model: *wei* 卫 defensive, *qi* 气, *ying* 营 nutritive, *xue* 血 blood), resulting in internal latent heat.^{11,26} When faced with an exogenous pathogen later on, the heat then manifests itself.^{11-12,26-27} Although inoculation is not a novel concept in CM, with the practice first recorded in China around the tenth or eleventh century, the way ancient CM physicians administered it differs significantly from the modern biomedical approach.²⁸ Ancient records show that pathogenic material was introduced into the patient either via the nose or via a scratch on the skin.²⁸ In both methods, the pathogen was not delivered directly into the interior but

on the exterior. This allows the body to respond in a natural manner and build up its defence. In other words, one's *zheng qi*, in particular, one's *wei qi*, must be strengthened as part of an illness prevention measure. Vaccination as an aspect of that strategy is not rejected by CM but the biomedical method of deep intramuscular delivery is questioned by some CM practitioners.

2. TREATMENT

HERBAL FORMULAE

The *wen bing* school has more than 1000 formulae for treating over 60 types of syndrome.^{11-12,14} The use and modification of formulae for a patient will depend on a CM practitioner's pattern differentiation of the individual. Influenza falls under the category of wind warmth 风温, based on the signs and symptoms and natural history of the disease.^{11,14,20} *Sang Ju Yin* 桑菊饮 (mulberry leaf and chrysanthemum drink) is the preferred formula in the initial stage of wind warmth.^{11-12,14,29} It is good for 'coursing wind, dissipating heat, and treating cough'.²⁹ The other commonly used formula is *Yin Qiao San* (honeysuckle and Forsythia powder).^{11-12,20,29} The latter is better than *Sang Ju Yin* in 'out-thrusting the exterior with acidity and coolness and for clearing heat and resolving toxins'.²⁹ The key symptoms in this scenario are fever and aversion to cold.¹⁴

If the patient delays seeking treatment, the pathogen may enter the *qi* level. Alternatively, the pathogen may penetrate from the upper *jiao* to the middle *jiao* (of the three burner differentiation system, also part of the *wen bing* school). The key symptoms in this stage are fever, constipation and damage to body fluids, i.e. dryness.¹⁴ The appropriate formulas include *Bai Hu Tang* 白虎汤 (white tiger decoction), *Zeng Ye Tang* 增液汤 (increase the fluids decoction), *Tiao Wei Cheng Qi Tang* 调胃承气汤 (regulate the stomach and order the qi decoction), *Zeng Ye Cheng Qi Tang* 增液承气汤 (increase the fluids and order the qi decoction).^{11-12,14,20}

The *wen bing* school teaches that if wind warmth disease is left untreated it will penetrate into the *ying* (nutritive) and *xue* (blood) levels. The patient may experience symptoms including confusion, delirium, loss of consciousness, macules, and high fever. These signs and symptoms are similar to those delineated by biomedicine regarding the more severe cases of 2009 H1N1, which include confusion, sudden dizziness, pain/pressure on chest/abdomen, severe/persistent vomiting.³⁰ The *wen bing* school argues that warm diseases first attack the lungs, then frequently the stomach and intestines which accounts for the nausea and vomiting and abdominal symptoms.^{11-12,14,20} In some instances, the disease proceeds directly from the lungs into the pericardium, accounting for the delirium, confusion and loss of consciousness.^{11-12,14,20} There are several formulae available for the latter cases and their application depends on

more precise diagnoses. The commonly used formulae are *Qing Ying Tang** 清营汤 (clear the nutritive level decoction), *An Gong Niu Huang Wan** 安宫牛黄丸 (calm the palace pill with cattle gallstone), *Xi Jiao Di Huang Tang** 犀角地黄丸 (rhinoceros horn and rehmannia decoction), *Qing Hao Bie Jia Tang* 青蒿鳖甲汤 (sweet wormwood and soft-shelled turtle shell decoction) and *San Jia Fu Mai Tang* 三甲复脉汤 (three-shell decoction to restore the pulse). These herbal prescriptions are calculated to restore consciousness, clear heat strongly, open orifices, extinguish wind, stop bleeding and nourish yin.^{11-12,14,20,24} [*See Editor's Comments on page 29 regarding endangered species]

FU XIE 伏邪 – LINGERING PATHOGENS

When a warm disease invades a body and it is not cleared completely, there remains some pathogenic factor. This pathogenic factor is referred to as lingering pathogens or *fu xie*.^{11-12,14,20,26} Liu states, 'remnants of heat' refers to a situation where heat from excess has been fighting with the body's yin.¹¹ In the process both sides are injured and the heat thus become less forceful due to the yin's moderating influence. Maciocia notes that a pathogenic factor 'may appear to have been expelled, and the patient appears to recover, but actually a residual pathogenic factor has been formed'.³¹ *The Chinese-English Dictionary of Traditional Chinese Medicine* defines *fu qi/fu xie* as:

the syndrome of pathogen incubating in the body for a long period before the onset of the disease. The affected regions are deeper or shallower. The more deeply the pathogen incubates, the more severe the illness will be. The onset of the illness starts from the interior and slowly extends to the exterior, usually with long and various course.³²

After the resolution of the acute symptoms, the patient may not be conscious of any adverse result of *fu xie* and be under the impression that all is well. However, *fu xie* has consequences and can manifest itself in common signs and symptoms, from allergies to persistent intermittent low-grade fevers.³¹ The chronic allergies/sensitivities may be dismissed as hay fever. The persistent intermittent low fever may be ignored or put down to stress. The constant shortness of breath on exertion where none existed prior to the disease may be ignored or regarded as a part of ageing. *Fu xie*, however, predisposes the patient to exogenous pathogens causing them to fall ill more easily. It can act as a Trojan horse and allow warm pathogens to enter more rapidly than normal into the interior of the body causing a more severe disease state.^{11-12,14,20,26,32}

It is vitally important in treating warm diseases to ensure that the pathogens are fully and completely expelled. In this, CM differs from biomedicine. In the latter, antibiotics and antivirals are used to kill or inactivate the bacteria and viruses. The

implication is that these dead microbes are still left in the body and may in time be removed by the body's system altogether or they may not be removed at all.²⁶ CM, however, is insistent that pathogens must also be expelled from the body.^{11,26} It was the *wen bing* school that first proposed the concept of *fu xie* or *fu qi wen bing* 伏气温病, variously translated as lingering, lurking, residual warm pathogen disease.

Thus, in the treatment of someone who presents with flu-like symptoms, a comprehensive and in-depth history of the patient is essential in drawing out any previous *fu xie*. This suggests that post-resolution treatment strategies are essential once the acute signs and symptoms are gone.

3. FOLLOW-THROUGH/UP

It can be difficult to convince a patient of the need for follow-up treatment once their presenting condition has been rectified. The above discussion of *fu xie* underscores the need to educate patients in the concepts of CM. The follow-through for the clinician is to ensure that (1) the treatment prescription was correct and effective in resolving the disease; (2) the herbal prescription has been taken correctly and consistently by the patient; (3) the patient has had ample rest, physically, emotionally, mentally; and (4) the patient has been eating a proper diet.^{20,27} If any of these four aspects has been compromised, the physician should consider that some warm disease pathogen may still remain. If left untreated, this can then result in a cycle of illness followed by a short period of recovery and then illness again, a cycle that will surely drain the patient's qi and damage the blood over time. Perhaps this is what epidemiologists allude to when they 'long puzzled over why seasonal infectious disease outbreaks occur when they do. Perhaps the more important question is why they do not occur when they do not. Is the human population already relatively resistant for 6–9 months each year?'³³ Dowell, from whom the previous observation comes, further notes that

pathogens do not physically migrate across the equator and that nationwide epidemics do not necessarily result from chains of person-to-person transmission. Rather, the pathogens may be present in the population year-round, and epidemics occur when the susceptibility of the population increases enough to sustain them. Perhaps the most significant prediction is that people are relatively resistant to disease if exposed in the off-season and that the specific physiologic process leading to seasonal resistance should be identifiable and perhaps modifiable.³³

The trend that epidemiologists have discerned recently would appear to fit in neatly with the concept of *fu xie* proposed some three hundred years ago, a concept that continues to be developed by the *wen bing* school.¹¹ It would seem that modern epidemiological data supports the theory and clinical

practice of an ancient school of thought in traditional Chinese medicine. It would also reinforce to CM physicians the vital need to follow through the treatment of the acute stage of the 2009 H1N1 influenza, or for that matter, any disease.

A well-known herbal prescription for expelling *fu xie* is *Xiao Chai Hu Tang* 小柴胡汤 (minor bupleurum decoction). Herbal formulae used to treat the acute stage of 2009 H1N1 or wind warmth disease at the *qi*, *ying* and *xue* levels can also be prescribed with modifications. Herbs such as *Chantui* 蝉蜕 (Cicadae periostracum), *Dandouchi* 淡豆豉 (Sojae semen praeparatum) *Bohe* 薄荷 (Menthae haplocalycis herba), *Jingjie* 荆芥 (Schizonepetae herba) and *Niubangzi* 牛蒡子 (Arctii fructus) can be added to guide the *fu xie* to the exterior for expulsion.^{29,34,35}

4. REINFORCING

The last phase of managing someone with the 2009 H1N1 influenza, or in the language of *wen bing*, wind warmth, is reinforcing the constitution of the patient. In any disease process, *qi* would be used up in overcoming the pathogen. The more severe the disease is, the more *qi* is consumed, the more the damage needs to be arrested and repaired and the constitution rebuilt. The attention to repairing damages and building up *qi* is of particular need in those with prenatal *qi* deficiency. Where the disease is not so severe, the measures enunciated in phase one, prevention, can be applied to restore a patient's constitution. Obviously, tonic herbs should only be used if the physician is satisfied that there is no lingering pathogen. Otherwise, the latter can be strengthened and so embed itself even more deeply in the body, rendering it harder to expel.

The reinforcing phase may involve an honest discussion between the physician and the patient on changing lifestyle, addressing harmful habits and adopting a different outlook on health. It is also a great opportunity for educating the patient on the various aspects of Chinese medicine to encourage a deeper understanding. This extends to what is traditionally called *yang sheng* 养生, literally cultivating life. The build-up phase overlaps with many aspects of the prevention phase.

Conclusion

The epidemiological data for influenza presented above serve as a basis for the effectiveness and historical and empirical use of *wen bing* theory and treatment methods in the management of the 2009 H1N1 influenza. This paper does not offer 'evidence' in the same mode as those espoused by biomedical science. A Cochrane meta-analysis by Chen et al.³⁶ suggests that the application of that model of evidence to CM is filled with difficulties due to the different natures of the two medical systems. Chen et al. conclude that the 'present existing evidence is too weak to support or reject the use of any Chinese

Medicinal herbs for preventing or treating uncomplicated influenza'.³⁶ However, they recognise that the aim in CM in treating influenza is 'not only to cure the respiratory syndrome, but also to treat the whole body'.³⁶ Thus, they acknowledged that the use of standard biomedical trials to assess CM is difficult due to the differences in herbal prescription, pharmacological agents used and the diagnostic pattern differentiation. The same conclusion is applicable to *wen bing* and its use on the 2009 H1N1 influenza. Chen et al. assert that one 'must accept that the overall treatment concept for TCM is different to that used in western medicine'.³⁶

It can be argued that experiential evidence can be offered on the use of *wen bing* theory in treating 2009 H1N1 influenza. As discussed above, the mild form of 2009 H1N1 did not require hospitalisation. Most patients either would have sought assistance from their general practitioners or would have recovered from the illness on their own, if their constitution was strong. Others would have been treated by their CM practitioners for influenza. In late June 2009 in New South Wales, routine laboratory testing for the 2009 H1N1 virus was restricted to those hospitalised with the severe form of the illness.³⁷ It would have been difficult to gather evidence for the CM treatment of the mild form of 2009 H1N1 in that climate.

It is not a matter of subordinating CM to biomedicine but rather using what is relevant from biomedicine to expand and deepen CM theory and practice. The long history of Chinese medicine in general and of the *wen bing* school specifically holds much evidence on adapting and responding to changes in the climate, environment and newly emerging diseases. Uncovering these huge bases of data and information from CM and comparing them with modern epidemiological ones can perhaps offer another legitimate and valid way of understanding and treating contemporary diseases. Such a methodology would also provide another strategy for integrating biomedicine with Chinese medicine. There is surely no need to reinvent the wheel.

Clinical Commentary

The 2009 H1N1 influenza is the first flu pandemic of the twenty-first century. It has caused considerable panic and anxiety in the public and medical establishment. The aetiology and presentation of the influenza are remarkably similar to those patterns enunciated by the *wen bing* School of traditional Chinese medicine. On that basis, TCM practitioners can use *wen bing* theory as a foundation to manage the 2009 H1N1 influenza effectively. This paper examines the similar manifestations of warm diseases and swine flu and offers a working framework covering their prevention and treatment.

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EDITOR'S COMMENT:

* These formulas (pages 26 and 27) contain *muxiang*, *xijiao shexiang* and *niubuang*, substances that are listed in Appendices I, II or III of the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES). International trade in such substances is banned (Appendix I) or requires relevant permits from the CITES authorities in the exporting and importing countries (Appendices II and III). The use of these traditional names are for academic reference only and effective substitutes are available. The Australian Acupuncture and Chinese Medicine Association Ltd and the AJACM oppose the illegal use of endangered species of wild flora and fauna. For further information, please refer to <http://www.cites.org/> and <http://www.acupuncture.org.au/escs.cfm>.

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Plantar Fasciitis, Another Approach — Using Acupuncture and Looking Beyond the Lower Limb with a Brief Review of Conventional Care: A Case Series

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ABSTRACT

Introduction: Plantar fasciitis is a common idiopathic debilitating condition linked to the biomechanics of the lower limb. Conventional care of stretching, splints, arch supports, extracorporeal shock wave therapy and cortisone injections offer inconsistent results. This case series demonstrates another approach to the management of plantar fasciitis utilising acupuncture and looking beyond the lower limb. In addition to commonly used points, two extra points are used with dense-disperse electro-stimulation. **Case presentation:** Two retrospective cases are presented. Case one is a 23-year-old Caucasian female who presented with a history of intermittent left heel pain which was painful especially on first step in the morning. Symptoms resolved after five acupuncture treatments addressing the plantar fascia, low back and leg-length imbalance. Symptoms would initially recur whenever a back injury recurred. The second case is a 46-year-old Caucasian male who presented with a 12-week history of bilateral plantar fasciitis confirmed on ultrasound. The patient also complained of mild low back pain. Acupuncture treatment addressing the plantar fascia, low back pain and leg-length imbalance led to complete resolution of symptoms after six weekly treatments. **Conclusion:** This case series adds to the limited literature on the treatment of plantar fasciitis with acupuncture and offers a low risk treatment strategy. Two extra acupuncture points are described and provisionally named. Three other areas are identified for further investigation. The first is an association between apparent leg-length difference and some cases of plantar fasciitis. The second is the question of whether platelet-derived growth factor is activated via the electroacupuncture aspect of the treatment. The third is the need to conduct a post-recovery imaging study of the plantar fascia in an attempt to correlate tendon changes to the mechanism of acupuncture treatment.

KEYWORDS acupuncture, electroacupuncture, auriculotherapy, dry needling, leg-length difference, plantar fasciitis.

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Introduction

Plantar fasciitis is one of the most common causes of heel pain with an incidence of 11–15% of all foot symptoms requiring professional care among adults, and an incidence of 10% of all running injuries. Patients typically experience inferior heel pain with the first few steps after rising in the morning or after prolonged sitting. Pain often initially eases but then increases with daily activities. Pain is worse for dorsiflexion of the pedal phalanges and is aggravated by walking up stairs, walking on hard surfaces or walking barefoot. A limp may be present. A history of an increase in the amount or intensity of exercise, often running or walking, frequently precedes symptoms. On examination there is usually pain on palpation of the anterior medial heel.¹ The term chronic plantar heel pain (CPHP) is used interchangeably in the literature to refer to plantar fasciitis.²

The plantar fascia originates on the medial tubercle of the calcaneus and fans out over the bottom of the foot to insert into the proximal phalanges and the tendon flexor sheaths.¹ It forms the longitudinal arch of the foot and functions as a shock absorber as well as an arch support via a windlass mechanism.^{1,3} The braking strain of this windlass mechanism ranges from 1.4 to 3.4 times the subject's body weight,³ making the fascia subject to damage with a relatively minimal increase in strain.⁴

The aetiology of plantar fasciitis is poorly understood.⁵ Due to its high incidence in runners it is believed to be caused by repeated microtrauma and to be mechanical in origin.^{1,5} Contrary to historical perspectives plantar fasciitis is a misnomer as histological evidence shows that inflammation rarely occurs in plantar fasciitis and that it is really a degenerative fasciosis.⁶ Risk factors for developing plantar fasciitis include increased weight in a non-athletic population, increased age, decreased ankle dorsiflexion, decreased first metatarsophalangeal joint extension and prolonged standing. Height, weight and BMI are not associated with plantar fasciitis in the athletic population. Evidence of an association between static and dynamic foot motion is inconclusive. An association with leg-length difference is considered to be weak and has only been identified in one study.²

A systematic review of diagnostic imaging and chronic plantar heel pain revealed that plantar fascia thickening greater than 4 mm was diagnostic of plantar fasciitis, and that a subcalcaneal spur was strongly associated with chronic heel pain.⁷ A diagnosis of plantar fasciitis is, however, a clinical diagnosis, usually based on history and clinical examination;⁴ imaging studies are not usually necessary.

Conventional Care

There is no evidence to define a standard of care based on replicated randomised controlled trials.⁸ Conservative care typically consists of a range of interventions including calf and plantar stretching and arch supports.⁴ Taping can be used to take strain off the plantar fascia and night splints can reduce first-step pain by preventing overnight atrophy of the plantar fascia.⁸ Tatli and Kapasi⁴ state that conservative care provides 'satisfactory results' in 80–90% of cases without defining 'satisfactory'. Over-the-counter arch supports appear to be as effective as custom orthotics,⁴ and a systematic review found that it is unclear that customised orthotics are of any benefit at all in plantar fasciitis.⁹

Persistent cases may be treated with nonsteroidal anti-inflammatory drugs (NSAIDs),⁸ corticosteroid injection, extracorporeal shock wave therapy (ESWT) or botulinum toxin type A (Botox).⁴ Corticosteroid injections are the treatment of choice and are more effective when combined with stretching, and more successful when administered under ultrasound guidance.⁴ The evidence supporting the use of ESWT is ambiguous, and botulinum toxin type A has been found to reduce the pain of plantar fasciitis in one small study.⁴ The finding that inflammation is rarely present in plantar fasciitis forces a re-evaluation of the rationale for using a steroid injection,⁶ especially as corticosteroid injections also carry with them the rare risks of plantar fascia rupture and fat pad atrophy.⁴

A more recent addition to treating plantar fasciitis and musculoskeletal injuries in general is the use of autologous blood products. In this procedure 30–60 ml of venous blood is withdrawn from a patient and centrifuged to produce 3–6 ml of platelet rich plasma (PRP). This PRP is then injected directly into the area of injury, preferably under ultrasound guidance. It is believed that the therapeutic benefit of injecting PRP is due to growth factors contained within alpha granules inside platelets. These growth factors include platelet-derived growth factor (PDGF), which is produced following tendon damage, transforming growth factor, vascular endothelial growth factor, epidermal growth factor and fibroblast growth factor.¹⁰

Chinese Medical Pathology

Chinese medical theory describes this condition as Bi syndrome.¹¹ The flow of qi and blood in the channels becomes obstructed resulting in stagnant qi and blood which causes the pain.¹² This condition shows mainly blood stagnation as the pain is intense, fixed and persistent. Where qi and blood stagnate, damp is formed, which can thicken and cause

phlegm. The type of phlegm in this case is non-substantial phlegm which lodges in the channels and joints,¹³ further obstructing the flow of qi and blood. Treatment should aim to restore the flow of qi and blood and disperse the phlegm.

Literature Review

A literature review was conducted using the key words plantar fasciitis and acupuncture, as well as plantar fasciitis and dry needling. Pubmed and Medscape were searched as well as the Chinese medical journals which conform to the STRICTA¹⁴ protocol. A case study was found on a non-indexed ejournal.¹⁵ A total of five articles were found including one randomised control trial (RCT),¹⁶ an ejournal article,¹⁵ a retrospective case series,¹⁷ and two prospective studies.^{18,19}

Sconfienza¹⁸ conducted a non-randomised dry needling trial which consisted of an initial perifacial local anaesthetic followed by repeated dry needling of the plantar fascias and a corticosteroid injection. Sconfienza speculates that the dry needling attracts platelets to the area which release healing factors, a similar hypothesis for the therapeutic effect of PRP autologous injections.¹⁰ The trial claims a 90% effectiveness rate.

The RCT¹⁶ investigated the single point PC7 *Daling* needled contralaterally to the heel pain compared to LI4 *Hegu* needled contralaterally, finding better pain scores with PC7 *Daling*. The remaining three studies investigated common lower limb points with *ashi* points in the foot and plantar fascia^{15,17,19} or gastro-soleus muscle.¹⁹ Two of these studies used or recommended low frequency electroacupuncture.^{15,17} None of these studies address pathology above the knee. Only the case study by Smith¹⁵ proposed point selection based on TCM *zangfu* syndrome differentiation. The limited literature available regarding acupuncture and plantar fasciitis combined with the risks of conventional care in recalcitrant cases makes this case series a useful addition to understanding treatment options for this common condition.

Case One

Case one is a 23-year-old Caucasian female who presented in February 2004 complaining of intermittent left heel pain which was painful especially on first step in the morning. There was no history of specific injury however she did attend recreational dance classes. On examination pain was present at the insertion of the plantar fascia on the medio-inferior aspect of the calcaneus. A scoliosis to the right was present. In the supine position the left anterior superior iliac spine (ASIS) was elevated resulting in an apparent leg-length difference with the left medial malleolus approximately 3 cm higher than the right. The right internal hip rotation was restricted.

TREATMENT

Soft tissue manipulation (a combination of Bowen method and drainage to the lumbar erector spinae group, gluteals and sacrum) was applied with the intention of addressing the pelvic imbalance and apparent leg-length difference. The calf and plantar surface of the foot were massaged.

Vinco 0.22 x 25 mm needles were inserted bilaterally at BL57 *Chengshan* (10 mm deep), BL60 *Kunlun* (8–10 mm deep), KI3 *Taixi* (5–8 mm deep), GB39 *Xuanzhong* (alternative location, see Table 1) (10–15 mm deep) and SP6 *Sanyinjiao* (10–15 mm deep). Gentle lifting and thrusting for less than 5 seconds was used to obtain very mild *deqi*. Viva 0.22 x 30 mm needles were inserted bilaterally at two extra points (see Table 1) to a depth of 20–25 mm without needle manipulation. No *deqi* was sought. All needles were inserted perpendicularly except for KI3 *Taixi* and BL60 *Kunlun* which were directed inferiorly towards the heel. Electro-stimulation was applied with the red electrode at GB39 *Xuanzhong* and the black electrode at extra point 'Lower *Shenmai*' (see Figure 2); and with the red electrode at SP6 *Sanyinjiao* and the black electrode at extra point 'Lower *Zhaohai*' (see Figure 1). An AWQ-104E needle stimulator was used at a dense-disperse setting of approximately 4 and 100 Hz. The intensity was raised to distinct but not uncomfortable and left for 20 minutes. No special instructions regarding footwear or stretching were given.

There was no improvement by the second visit 10 days later. At the second treatment the left ASIS and right internal hip rotation was still restricted and apparent leg-length difference persisted, so in addition to the previous treatment the points BL22 *Sanjiaoshu* and BL23 *Shenshu* were added as they correlated to areas of restriction in the lumbar spine. Vinco 0.22 x 40 mm needles were inserted at these points to a depth of 20–25mm with small rotations and gentle lifting and thrusting for less than 10 seconds until mild *deqi* was obtained and then retained for 20 minutes. At the third treatment there was a slight improvement in symptoms with a patient report of less severe morning heel pain. The ASIS were balanced, the internal hip rotation equalised and there was less than 0.5 cm difference between symmetry at the medial malleoli. The treatment was repeated twice more using the same general needle depth and electro-stimulation settings as for previous treatments (a total course of five treatments at an interval of about ten days apart). After this there were no more symptoms of heel pain or tenderness on palpation until three months later. At this later presentation imbalance between the ASIS and medial malleolus was evident again with an approximately 2 cm difference in symmetry at the medial malleolus. The same treatment was repeated once and the patient was asymptomatic until a recurrence associated with low back pain five months later, which responded to

TABLE 1 Extra and Alternative Point Locations

'Lower Zhaohai'	Inferior to the high point of the medial malleolus in a depression at the junction of the red and white skin, inferior to KI 6 <i>Zhaohai</i> . See Figure 1.
'Lower Shenmai'	Inferior to the high point of the lateral malleolus, in a depression at the junction of the red and white skin, anterior to BL 61 <i>Pucan</i> , and inferior to BL 62 <i>Shenmai</i> . See Figure 2.
Alternative Location for GB 39 <i>Xuanzhong</i>	3 cun superior to the lateral malleolus in a depression anterior to the Achilles tendon and posterior to the fibula.

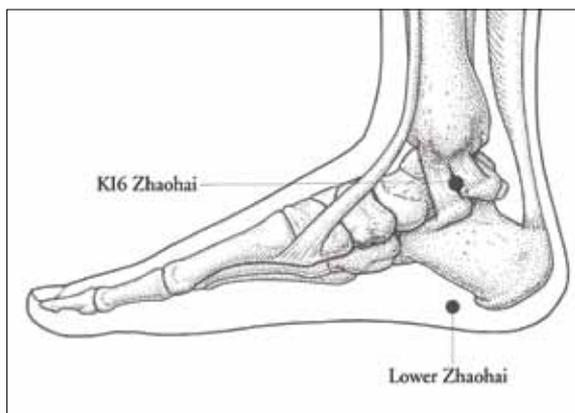


FIGURE 1 Location of 'Lower Zhaohai'

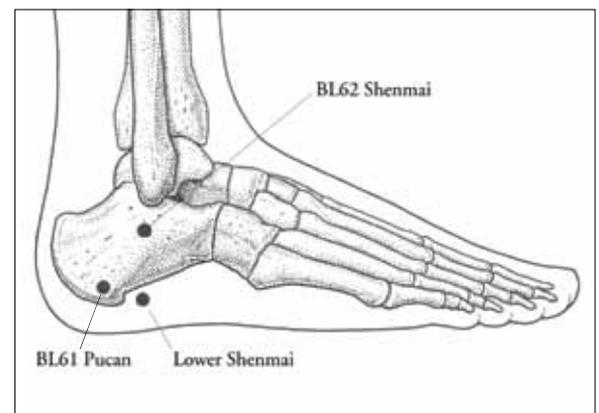


FIGURE 2 Location of 'Lower Shenmai'

Figures 1 and 2 have been adapted from Deadman P, Mazin A, Baker, K. A Manual of Acupuncture. Journal of Chinese Medicine: Hove, East Sussex; 2008. p320, 325, 339, 344.

another single treatment administered as per the previous treatments. This patient continues to dance as of 2010 (six years later) and experiences various self-limited acute injuries however the plantar fasciitis has not returned. The patient continues to present with the tendency to a pelvic imbalance and slight apparent leg-length difference (approximately 1 cm), which may relate to her scoliosis.

Case Two

Case two is a 46-year-old Caucasian male who presented in November 2006 with a twelve-week history of bilateral plantar fasciitis. He complained of pain in the feet which was worse on rising in the morning and worse in the left lateral heel. He also complained of mild low back pain. X-rays of both feet showed no abnormality and no calcaneal spurs. Diagnostic ultrasound revealed bilateral thickening of the plantar fascia consistent with plantar fasciitis. The left facial thickening was more extensive than the right.

On examination in the supine position the right ASIS was elevated revealing an apparent leg-length difference with the right medial malleolus higher than the left by 3 cm. In the

prone position the left hip internal rotation was restricted. Tenderness was elicited on palpation around the centre of the heel in the vicinity of the plantar fascia attachment to the calcaneus, as well as just inferior to BL63 *Jinmen* on the left foot. A treatment plan of once a week treatment for three treatments before review was determined.

TREATMENT 1-3

Soft tissue manipulation (a combination of Bowen method and drainage to the lumbar erector spinae group, gluteals and sacrum) was applied to the lower back with the intent to address the pelvic imbalance and leg-length difference. Both calves and plantar surfaces of the feet were massaged. Following the soft-tissue manipulations acupuncture was given. In addition to the treatment protocol (with the same needling depths and electro-stimulation settings) used in case 1, Vinco 0.22 x 40 mm needles were inserted at BL25 *Dachangshu* (the focus of the lumbar pain) bilaterally with the patient prone. Lumbar points were needled to a depth of 25-30 mm with small rotations and gentle lifting and thrusting for less than 10 seconds each until mild *deqi* was obtained and retained for 20 minutes. The patient was advised to wear shoes with a supportive sole, to avoid going barefooted, and

advised to undertake calf and plantar stretching and plantar massage daily at home.

After the first treatment the patient reported that symptoms were aggravated for three days and then improved. The treatment was repeated. At the third visit the patient reported a few good days of less pain on rising. At the fourth visit the patient reported that the right foot was no longer painful and that the left foot only was symptomatic. On examination there was an apparent leg-length difference, with the right medial malleolus 3 cm higher than the left in the supine position. The focal point of pain in the left foot was around BL63 *Jinmen*.

TREATMENT 4–6

Soft tissue manipulation was applied to the low back, left calf and left foot similarly to the previous treatments. Acupuncture was applied to the left leg only (the right was asymptomatic) as above with the following modification. On the lateral side a Vinco 0.22 x 25 needle was inserted to a depth of 15 mm at the *ashi* point inferior to BL63 *Jinmen* and electro-stimulation was applied with the red electrode at this point and the black electrode at the extra point 'Lower *Shenmai*' (see Table 1). All other points were needled in the same manner as previously. The patient reported local tenderness for three or four days then improvement. An apparent leg-length difference was no longer evident as assessed in the supine position and using visual inspection of the ASIS and medial malleoli symmetry. The treatment was repeated and after a total of six treatments, once per week (three bilaterally and a further three to the left foot only), the patient was asymptomatic. At follow-up at seven months and 18 months later, the patient had no symptoms of plantar fasciitis and demonstrated a difference in medial malleoli and ASIS symmetry of approximately 0.5 cm.

Discussion

The intermittent nature of case one indicates more qi than blood stagnation and demonstrates treatment of an early presentation of plantar fasciitis. Case two is a typical presentation of plantar fasciitis where blood stagnation dominates. Non-substantial phlegm has lodged in the channels, which is demonstrated by the thickened plantar fascia on ultrasound.

In order to restore the flow of qi and blood, it is necessary to disperse the phlegm stagnation. This is achieved using the extra points which directly access the fascial attachment. It is around this same location that heel spurs are often found, indicating that this is a key point of stagnation where phlegm can congeal forming bony growths. The choice of acupuncture needle for these points is guided by the

need to reach the vicinity of the plantar attachment on the calcaneus. Needles shorter than 30 mm long result in a poor result. Needles of too fine a gauge (less than 0.22 mm) will be difficult or impossible to insert. An adequate gauge results in prompt insertion with minimal discomfort. These points are often not *ashi* points, and, when located properly, they are usually not unduly painful to treat. This can be contrasted with *ashi* points overlying the calcaneus, which must be punctured through thick heel skin and are usually painful.

Electroacupuncture (EA) is chosen as a comfortable way to stimulate points which could be painful if stimulated manually. Dense disperse is selected to reduce accommodation which can occur at low frequencies. Both the dry needling¹⁸ and autologous blood injection¹⁰ are believed to work via the release of platelet growth factors. Sun, Zhao and Wang²⁰ have shown that EA (98 Hz) activates the release of PDGF in cats. This finding suggests that the indications and benefits of EA go beyond the conventional understanding of a neurophysiological mechanism of EA and may directly stimulate repair via the release of PDGF. Should the release of PDGF be linked to EA in humans, then EA could become standard care for tendonopathies. It is noteworthy that a study using electro-stimulation to elicit muscle contraction without acupuncture was found to be of no benefit in plantar fasciitis.²¹

The persistent finding on imaging studies⁷ of a thickened plantar fascia and frequent calcaneal spurring indicates that in plantar fasciitis the diagnosis of blood stagnation and phlegm retention may relate to a measurable degenerative change in the plantar fascia and at its attachment to the bone. A follow-up imaging study to determine if the plantar fascia returns to its pre-morbid state would be useful to further understand the mechanism of acupuncture in this condition. A finding of true repair of the plantar fascia would aid in further correlating traditional Chinese medical pathology with anatomical pathology.

In both of these cases, low back pathology and an apparent leg-length difference were evident and symptoms did not resolve until this pathology was adequately addressed. In case one, symptoms recurred after a back injury which exacerbated the apparent leg-length difference which accompanies a scoliosis. The biomechanical implications of leg-length imbalance are referred to in the literature; however, a causative association between imbalance and pain remains controversial.²² Part of this controversy may relate to the need for a simple, reproducible system categorising different types of pelvic postural asymmetry;²² part may also be due to difficulties in measuring arch mechanics in vivo.⁵ Leg-length imbalance is identified as a risk factor in some pathologies such as greater trochanter bursitis;²³ however, it must be noted that leg-length imbalance is not considered a risk factor for plantar fasciitis,² nor is any pathology above the knee considered

in treatment.^{1,4,8} Considering the limited capacity for the windlass mechanism of the plantar fascia to tolerate increase in strain,⁴ and the likelihood that a leg-length imbalance alters the load through the foot and hence the strain on the plantar fascia, it seems reasonable to screen for and treat leg-length difference in every case of plantar fasciitis.

Oriental medical theory identifies that a leg-length difference relates to imbalance in the eight extraordinary channels, in particular the *Yangwei mai* and *Dai mai* connection, and also the *Yinqiao mai* and *Ren mai* connection.²⁴ An imbalance in the channels can lead to stagnation of qi and diverse pathologies ranging from musculoskeletal pain to gynaecological problems linked to the pathways and connections of the channels involved.²⁴ Clinically ignoring a leg-length imbalance is to ignore a potential or actual basis for the development of subsequent channel and *zangfu* pathologies. The difficulties in quantitatively assessing and investigating this phenomenon should not result in it being ignored clinically from either a western pathological viewpoint and especially not from an Oriental medical viewpoint.

Conclusion

This case series demonstrates another safe approach that can be utilised to treat plantar fasciitis. Acupuncture provides a valuable option which can be combined with conventional care of calf and plantar stretching and arch supports (if indicated). The association between apparent leg-length difference and symptoms in these cases merits further investigation to determine their generalisability, and may provide a missing causal link to the pathology of some cases of plantar fasciitis. It is possible that electroacupuncture stimulates the release of PDGF and contributes to the long-term results which are achieved after addressing the low back pathology. A follow-up imaging study of successfully treated patients should be conducted to determine if the plantar fascia thickening is reversed. A correlation of asymptomatic patients and reversed plantar fascia thickening would provide further understanding of the mechanism of acupuncture.

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Clinical Commentary

This paper demonstrates a comprehensive approach to the treatment of plantar fasciitis. Electroacupuncture is often effective in combination with conventional conservative care of plantar stretching and wearing supportive footwear, along with addressing leg-length imbalance. Although the literature does not associate leg-length imbalance with plantar fasciitis, addressing leg-length imbalance where evident is still important. Acupuncturists who take an eclectic view of treatment are well placed to be the preferred point of contact when treating plantar fasciitis.

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Treatment of Human Immunodeficiency Virus (HIV) Associated Neuropathy with Acupuncture and Moxibustion: A Case Report

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ABSTRACT

Peripheral neuropathy is a common neurological complication of the human immunodeficiency virus (HIV) infection and is often associated with the use of antiretroviral medications. The severe and debilitating pain can significantly impair quality of life. Traditional Chinese medicine (TCM) offers treatment modalities to manage distressing symptoms in addition to western interventions that often do not provide total relief and are associated with side effects. This case report illustrates a six-week course of acupuncture and moxibustion for a 49-year-old HIV-positive female. The outcome suggests that TCM may provide significant improvement and may be a valuable option for the effective management of HIV-related symptoms.

KEYWORDS Peripheral neuropathy, HIV, acupuncture, moxibustion.

Introduction

Peripheral neuropathy (PN) is a common neurological complication experienced by people living with the human immunodeficiency virus (HIV). Along with the success of highly active antiretroviral therapy (HAART) in reducing morbidity and mortality, individuals with HIV still often develop neurological complications and the most frequent type is distal sensory peripheral neuropathy (DSP) which occurs in approximately one third of HIV patients.^{1,2} Post HAART, DSP continues to be prevalent with associated risk factors including age, mitochondrial polymorphisms, antiretroviral medications and co-morbidities, such as diabetes and nutritional deficiencies.^{3,4} The exact pathology of DSP in HIV remains unknown but proposed mechanisms include cytokine dysregulation, viral protein produced

neurotoxicity and mitochondrial dysfunction associated with antiretroviral agents.^{3,5,6} DSP presents with burning (dysaesthesia), numbness, and pins and needles (paraesthesia) in the distal extremities, predominantly in the toes and soles of the feet.⁷ Physical examination findings may reveal decreased or absent ankle reflexes, loss of sensory perception to light touch, temperature, and vibration and occasional intrinsic muscle weakness.^{2,8}

If left untreated, many patients may experience progressive gait difficulties and limitations in everyday activities, such as bathing or dressing. The debilitating pain can interfere with housework, work outside the home, and social activities resulting in emotional stress and significantly impacting on

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quality of life. Interventions to manage DSP associated with HIV have been adopted from strategies of diabetic PN as the symptoms may be similar.³ Current treatment is primarily aimed at symptomatic management of pain with pharmacologic options, such as non-steroidal anti-inflammatory drugs (NSAIDs), tricyclic antidepressants, opioids, anticonvulsants and topical analgesics. However, available treatment options provide limited relief and are often accompanied by adverse side effects, such as sedation, dizziness and peripheral oedema.⁹

This case reports the use of acupuncture and moxibustion for 12 sessions over six weeks with twice a week treatments.

Case History

A 49-year-old female diagnosed with HIV since 1991 presented with various pain symptoms, including burning and cold sensation, numbness and pins and needles on her lower extremities in early August 2006. The patient was referred by her primary care physician. Her primary complaint was burning, sharp pain in her feet and toes bilaterally. She also felt coldness and numbness in her lower legs. The symptoms would last for two to three hours and sometimes endure for the whole day. Her neuropathy symptoms began in January 2006 and she was started on gabapentin (an anticonvulsant often prescribed for neuropathic pain) with little relief. Using a standardised scale of severity from 0 to 6 (0 = no discomfort at all and 6 = very severe discomfort),¹⁰ her baseline symptoms of pins and needles were rated as severe (5/6), pain and numbness were rated as very severe (6/6), as was her overall severity of symptoms (6/6). In addition to the scale of severity, the patient was given an anterior and posterior diagram with outlined dermatomes to indicate clearly the location of her pain. She reported being quite limited in climbing stairs, walking several blocks, and even bathing herself.

On initial physical examination, there was slight oedema on both ankles and her gait was antalgic, requiring the use of a cane. Utilising a standardised practice and traditional instruments of neurological sensory testing (128 Hz tuning fork [vibratory sensation], tooth pick [sharp sensation], cotton ball [soft sensation], hot and ice cold test tubes [temperature sensation]),¹¹ the patient was assessed pre-treatment as having an absence of sensation to pin prick and light touch in both feet and legs, and temperature (both hot and cold) on both thighs. Pressure sensation (measured with a 5.07/10-g Semmes Weinstein monofilament test) was absent bilaterally and her plantar reflexes were absent. Her muscle strength was normal but slightly reduced in ankle dorsiflexion and ankle plantar flexion. Her vibratory and position sense were intact. Her tongue was pink, long, pointed with a thick white coat and bare on the sides. Her pulse rate was 66 beats per minute and had a thin, deep quality.

The patient did not have a history of diabetes, nutritional deficiency or any acute medical condition. She has a past history of high blood pressure and currently manages her asthma with albuterol (bronchodilator). She was post menopausal with no climacteric symptoms and her last menses was 10 years ago. Her most recent HIV viral load was below 50 copies/ml and CD4+ lymphocyte count was 430 cells/mm³ while on a stable regimen of antiretroviral therapy of ritonavir (protease inhibitor) and atazanavir (protease inhibitor). To characterise the progression of her HIV disease, a low viral load is usually between 40 and 500 copies/ml and normal adult CD4 count reference ranges are generally within 500 to 1500 cells/mm³. She took no substances other than her prescribed medications. If the patient did require pain medication or had changes in other medications, she was instructed to inform the practitioner.

At the initial session, the patient reported sleep problems. She had extreme difficulty falling asleep and was waking up several times during the night. She noted she woke up too early and felt minimally rested upon awakening. The patient also reported low energy and often felt sleepiness during the day. She stated she felt tired all the time. As for her digestion, she indicated little appetite, heartburn and abdominal pain relieved by a bowel movement. She was prone to worrying, having trouble with her memory and difficulty concentrating. She also reported extreme impatience, irritability, and at times hostility. The patient also noted moderate backache pain, decreased desire to talk or move, and having none to little sexual desire. She often felt depressed or sad, overwhelmed and had difficulty making decisions.

TCM DIAGNOSIS

Liver and kidney yin deficiency; spleen and kidney yang deficiency; spleen dampness.

BIOMEDICAL DIAGNOSIS

Distal sensory peripheral neuropathy possibly due to HIV itself or medication.

TCM TREATMENT PRINCIPLE

Tonify blood/yin and yang qi; move qi and blood; resolve dampness.

TREATMENT

The patient lay supine and the following acupuncture points were selected: LI11 *Quchi*, SP10 *Xuehai*, GB34 *Yanglingquan*, ST36 *Zusanli*, SP6 *Sanyinjiao*, KI3 *Taixi*. The needles were inserted to a depth where *deqi* sensation was elicited and the needles were retained for 20 minutes with tonifying technique. Then the patient lay prone and LR8 *Ququan*, GB39 *Xuanzhong* were needled and retained for 20 minutes. Simultaneously, indirect pole moxibustion was applied for two minutes to each of the following points: BL17 *Geshu*, BL18 *Ganshu*,

BL20 *Pishu*, KI1 *Yongquan*. All acupuncture procedures were performed with Seirin J-type, No. 2 (0.18) x 30 mm, sterile disposable needles. Acupuncture points were stimulated with lighted pure moxa sticks using the indirect technique in a clockwise circular motion to provide gentle warming until the skin became slightly red.

OUTCOME

Following a schedule of acupuncture and moxibustion twice a week for six weeks, the patient kept a weekly symptom diary during her course of treatment recording her pain location, intensity and duration, as well as other general symptoms. At the patient's sixth session, she reported reduction of pain and pins and needles to moderately severe (4/6), numbness declined (5/6), and her overall severity of symptoms lessened to moderate (3/6). At the end of six weeks of treatment, the patient's gait was normal and she was not using her cane. Post-treatment sensory assessment was conducted and confirmed that she had improved sensation which was now intact to pinprick, temperature, and light touch in both legs and feet. Pressure sensation also improved and was present bilaterally. The patient reported her pain score had mitigated to moderately severe (4/6), and her overall severity of symptoms had alleviated and were mild (2/6). In a follow-up session two months later, the patient reported her pain, pins and needles and numbness score all were reduced and sustained to minor (1/6), as was her overall severity of symptoms (1/6).

Aside from the neuropathic symptoms, the patient also reported that she had been sleeping better and having less difficulty falling asleep. However, she was still waking up during the night. She felt less nervousness and anxiety and was not as fatigued all the time. She also reported her appetite increased slightly.

Discussion

This case report presents several concomitant symptoms of intense burning pain, cold, numbness and pins and needles with an underlying chronic illness managed with antiretroviral agents. The foundation of treatment in TCM is the principle of *ben* and *biao*. However, in practice, practitioners see patients with several roots and branches and may need to prioritise the differential patterns. Patients with longstanding conditions often present with numerous deficiencies in all the organs and the differential patterns may coincide, blend or overlay one another. In this case, the patient had been living with HIV for more than 15 years. Taking into consideration the long term use of antiretrovirals and the resulting damage to her spleen and stomach affecting the production of blood and qi, the treatment emphasised the multiple underlying deficiencies of the liver, spleen and kidney. The primary diagnosis of liver and kidney yin deficiency was determined by her presenting

neuropathic symptoms of heat sensation in the toes and soles of her feet, along with the predominant supporting symptoms of insomnia, nervousness, impatient disposition, thin pulse and tongue coat missing on the sides. The secondary diagnosis of kidney and spleen yang deficiency was made by the additional symptoms of coldness and numbness in her lower legs, supported by her oedema, lack of appetite, fatigue after eating, backache and low sexual desire. Her thick white tongue coat also indicated dampness.

To address the patient's neuropathic pain symptoms, a layered approach was implemented by nourishing the blood (ST36, SP6, LR8), kidney yin, yang and marrow (GB39, KI3). The emphasis was on tonifying blood points to build the yin. Then, enriching the yin builds the yang similar to adding kindling to generate the fire. Also, points were utilised to move the blood and qi (SP10, GB34) and clear heat (LI11) due to yin deficiency. Yongping and Stefanovic also describe in their case study of PN in HIV/AIDS, the principle of tonifying blood, qi and yin while moving qi and blood.¹² Over the course of treatment, the patient's general symptoms, such as sleep patterns, mood, appetite and fatigue also showed some improvement.

Moxibustion is typically recommended for cold imbalances such as cold hands and feet and avoided in conditions of heat, such as inflammation. In this case, recognising that the burning, heat sensation in the patient's feet and toes was deficient in origin informed the use of moxa on KI1 and was well tolerated by the patient. The use of moxa activates the blood, warms the yang and unblocks the meridians. Traditionally, acupuncture has been coupled with moxibustion but there have been few clinical studies of the application of moxibustion demonstrating its effectiveness. This case utilised moxibustion on blood related points (BL17, BL18, BL20) and suggests further research into its application and possibly the use of direct moxibustion. There is a paucity of information in the English literature on moxibustion, particularly on its traditional usage with acupuncture. Clinical cases illustrating the combination of acupuncture and moxibustion can assist in further understanding their synergistic therapeutic benefits.

Furthermore, peripheral neuropathy is also commonly associated with diabetes, alcoholism and chemotherapy agents. One study shows acupuncture may be effective in treating diabetic PN and a case series suggests its use in chemotherapy induced PN.^{13,14} The aetiologies may be different but this case study adds to the need for further research as it may hold wider application and promise.

Conclusion

In summary, the patient experienced significant improvement and a sustained response to TCM in managing one of the most distressing symptoms of HIV that western medicine

has not been able to fully address. By mitigating the intense burning, numbness and foot pain, the patient experienced more mobility, less frustration and enhanced simple daily activities, such as bathing and sleeping. As individuals with HIV are living longer, TCM may provide valuable and effective nondrug approaches to reduce HIV symptoms and/or HAART side effects and to improve quality of life.

Clinical Commentary

Peripheral neuropathy is a frequent complication experienced by HIV patients. It is associated with HIV infection and/or the toxic side effects of medications. This case report will be of particular interest to practitioners who see HIV patients with neuropathic pain. The acupuncture and moxibustion treatment described in this report was successful in reducing the severity of lower limb neuropathic pain and numbness associated with HIV and may provide a non-pharmacological approach to managing this distressing symptom and improving the quality of daily life for patients.

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Interview with Professor Wang Juyi, World-Renowned Acupuncturist: Part 1 of 2

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Introduction

Born in 1937, Professor Wang Juyi graduated in 1962 from the first class of the newly established Beijing Institute of Traditional Chinese Medicine (now the Beijing University of Chinese Medicine and Pharmacology). Professor Wang has been practising Chinese medicine for over 48 years. He worked as a doctor of acupuncture at the Beijing Hospital of Chinese Medicine for 22 years, then later served as president of the Beijing Xuanwu Hospital of Chinese Medicine for two years. He also served as professor, dean and chief editor of the China Journal of Acupuncture and Moxibustion (中国针灸) at the China Academy of Chinese Medical Sciences for twelve years. He worked as a doctor and professor in the United States for two years and has been a pioneer in developing a private Chinese medicine practice in the fast changing environment of modern Beijing for the last ten years. Since the late 1970s, he has had many teaching tours in major western countries and some third-world countries.

In 2008, he published *Applied Channel Theory in Chinese Medicine: Wang Juyi's Lectures on Channel Therapeutics* (王居易经络学讲演录 Wang Juyi jing luo xue jiang yan lu, referred to below as ACTCM 讲演录), co-authored with Jason D Robertson. This book has received favourable reviews and was awarded the 'Book of the Year 2008' by the German Scientific Society of Traditional Chinese Medicine NPO (DWGTCM).

Professor Wang specialises in applying classical channel theory to both diagnosis and treatment. Not only does he treat difficult and complicated cases effectively, he also treats commonly encountered illnesses with unconventional strategies. Professor Wang graciously agreed to be interviewed which was conducted over several sessions during the month of April earlier this year (2010) in Beijing.

The Questions

What made you choose acupuncture?

Firstly, let me answer why I chose Chinese medicine. I chose this field of study because of its magical effects! When I was a little boy, my mother suffered from metrorrhagia and metrostaxis. After trying a variety of treatments without good results, she was finally cured by a Chinese medicine practitioner. In fact, I myself was rescued from death by a Chinese medicine doctor! The 1950s were a tough time in China. During that time I contracted typhoid fever and had a very high temperature, profuse sweating, delirium and some internal bleeding. My mother brought me to a few western medicine hospitals and was told by many that it was a difficult case to treat. My mother, quickly running out of hope for my survival, visited Dr Yu Chaozhi on Yangrou Lane in central Beijing. To everyone's surprise, I recovered after taking Chinese herbal medicine for two weeks. As you can imagine, Chinese medicine therefore made quite an impression on me from my earliest years. As a consequence, when I registered for the college entrance examination in 1956, my first three choices were all colleges of Chinese medicine. At that time, China had only four colleges training doctors in Chinese medicine (*Editor's note: it is only since the 1990s that a number of the major teaching institutes of Chinese medicine in China have been upgraded from college to university status*).

After graduating I was sent to the Beijing Institute of Chinese Medicine to work as a researcher on acupuncture channels, while working at the same time as an acupuncturist at the Beijing Hospital of Chinese Medicine. At the time, I noticed that acupuncture did not seem to be guided by the classical theories of Chinese medicine. Some doctors treated patients mainly by finding sensitive (*ashi*) points. Some doctors treated patients mainly by acupoints drawn from their personal experience. Of course, they were successful in treating some disorders and could relieve some symptoms, but they rarely treated difficult and complicated cases effectively. When they encountered difficult and complicated cases (even some minor

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illnesses) and failed to get results quickly, they did not know how to explore other treatment strategies with their limited theories of Chinese medicine. On the other hand, there was an abundance of both opportunities and challenges for a young graduate at the time. Because of the state of the developing field and the evident opportunities, I resolutely chose acupuncture for my life's work. At that time, most of my other classmates chose internal medicine, gynaecology or paediatrics. Incidentally, I have a big anniversary coming up: in 2012 I will have practised acupuncture for 50 years.

In your opinion, what were the greatest achievements for acupuncture during the twentieth century?

I believe acupuncture has made five important achievements during my time. Firstly, the success of acupuncture anaesthesia made acupuncture known around the world. Secondly this led to eminent researchers such as Zhang Xiangtong, Han Jisheng and others who were able to discover and explain many of the details of the mechanisms by which acupuncture anaesthesia may work. Thirdly, Professor Zhu Zongxiang and his team demonstrated the physical reality of the channel pathways through a series of biophysical experiments (using sound, lasers and electroconductivity). Fourthly, the introduction of Chinese medicine into China's modern education system put acupuncture education on the fast track. And finally we have seen the more recent development of world-wide acupuncture research programs that use modern techniques and technology.

Could you please describe some of your most successful cases from the past 48 years and what inspiration you were able to draw from them?

I have several cases that stand out in my mind.

The first involved a 16-year-old male and occurred during the mid 1960s. The patient suffered from paraplegia caused by a haemangioma at the third thoracic vertebra. He had already been treated at a few hospitals in both Tianjin and Beijing before arriving at our hospital. In fact, he had undergone an unsuccessful operation in Tianjin. During the operation, a surgeon opened his back then decided not to continue because it was both too risky for the patient and difficult for the surgeon. He was told that his diagnosis was definite and that his disease was untreatable. Because of his youth, many people felt for this young man and a group of well-wishers actually carried him to the Beijing Hospital of Chinese Medicine. I was the first doctor to treat him. One interesting fact is that the boy's father concealed his diagnosis from me fearing that, if I knew the paraplegia was caused by a haemangioma of the vertebrae, I might refuse to treat his son as other hospitals had done. His father only said that, due to an encounter with cold, the boy suddenly lost the use of both legs. Usually a patient like this

would be required to have an x-ray. However, as his father said that he only had 200 yuan borrowed from relatives and friends and that an x-ray fee would leave him without money for both treatment and accommodation, I decided to treat him anyway. To my surprise, the patient showed slight improvement from the first treatment. After one year of treatment, the patient recovered and began working in the fields as a healthy farmer. This case provides a good example of not relying too heavily on western medicine diagnosis and treatment. Of course, western medicine diagnosis and treatment often provides a good reference for Chinese medicine practitioners. Nevertheless, we must firmly use the theories of Chinese medicine to diagnose and treat disease. This is the only way to exploit the strengths of our modality in order to treat difficult and complicated cases effectively.

The second case I would like to relate occurred during the mid 1970s and involved a female patient. She presented with pain in the right elbow. After 2–3 treatments, the right elbow pain disappeared but she then began complaining of right knee pain. After a few treatments for the right knee pain, she then developed pain on the left elbow. This provides a typical case of what we term wind obstruction (Bi syndrome). During this early stage of my practice, I mainly used local acupoints and as a consequence followed the pain from one joint to the other. Eventually, I changed the treatment strategy and used LI4 *Hegu*, LR3 *Taichong* and SP6 *Sanyinjiao* to regulate qi and blood for the whole body without needling any local acupoints. The wandering pain was then cured after twelve treatments. LI4 *Hegu* rules qi, LR3 *Taichong* rules blood and SP 6 *Sanyinjiao* rules yin-blood. Together, these three acupoints regulate qi and blood throughout the body. When the blood circulates freely, the wind will disappear automatically. After that experience, I began using LI4 *Hegu* and LR3 *Taichong* as primary acupoints for the treatment of a wide variety of conditions, ranging from post-partum pain to jetlag. After reflecting on this famous pair clinically, I might summarise their functions thus: scattering external wind, extinguishing internal wind and tracking wind in the hundred joints to regulate the channels. Given these broad regulating effects for wind, you can see why the pair is so widely used in the clinic.

This case points out an interesting aspect of the theory of knowledge in Chinese medicine. Namely, we must move 'from the particular to the general and then from the general back to the particular'. Secondly, we must move 'from practice to "knowledge" and then back to practice'. Simply put, we must treat more patients, take careful notes and use this information to come up with theories of how the medicine works. Many may be tempted to move in the opposite direction, from theory to practice, without the crucible of clinical testing. This is less helpful. Only by working in this time-tested way can we constantly improve our clinical results.

The third case involved a female of Greek origin in the late 1970s. The patient suffered from early atrophy of the brain leading to memory loss, poor concentration, mood swings and general cognitive impairment. As many know, this type of condition can be quite difficult to treat. For this patient, I used two acupoints: HT5 *Tongli* and KI6 *Zhaohai* bilaterally. After 2–3 treatments her symptoms improved noticeably.

How did I find that these two acupoints can be effective for treating atrophy of the brain? I began with the hypothesis that the aphasia may have been caused by a small stroke. In acupuncture departments, aphasia is actually seen quite commonly. However, recovery with treatment is often very slow and is rarely complete. In fact, some patients eventually become completely mute. Aphasia is also commonly seen in other types of brain atrophy. This led me to think of Chapter 10 from the Divine Pivot which states, ‘when the large collateral of hand *Shaoyin* is affected . . . if it is a deficient syndrome, the patient will not be able to talk. When treating, needle the HT5 *Tongli* acupoint, which is one cun behind the wrist.’ We should also remember that prolonged or severe disease often affects the collaterals. From these concepts, I concluded that aphasia may be caused by a disorder in the collaterals of the heart and brain and that this is why HT5 *Tongli* (a luo collateral acupoint) is the acupoint recommended by the Inner Classic.

Now to the next point. Aphasia, especially logaphasia, is often a motor function disorder affecting the muscles of the tongue. The *yingqiao* vessel has a function of regulating muscle movement among multiple channel sinews in the yin areas of the body. This would include voluntary and involuntary muscles on the inside of the body. In addition, Chapter 28 of the Classic of Difficulties states that the *yingqiao* vessel ‘reaches the pharynx and larynx’. Xu Feng’s ‘Complete Collection of Acupuncture and Moxibustion’ says that KI6 *Zhaohai* ‘dominates treatment of qi blockage in the pharynx and larynx’. Because of these ideas, I began thinking of KI6 *Zhaohai*, a acupoint which of course also communicates with the *yingqiao* vessel. So we can see that a review of classical discussions tells me that a combination of HT5 *Tongli* and KI6 *Zhaohai* will open collateral circulation of the heart and brain while harmonising the function of muscles along the path of the *yingqiao*. This line of thinking made me think of the acupoint pair for the treatment of aphasia (especially logaphasia) due to stroke. I had been using this pair since the late 1960s to treat aphasia, bulbar paralysis and choking with results that seem to be better than other acupoint prescriptions.

Currently, I use this acupoint pair even more broadly. It can be used for a wide variety of mental disorders with symptoms of mood swings, irritability, crying, inappropriate laughter, Alzheimer’s disease or even insomnia due to a disharmony of heart and kidney. This case demonstrates that, when

treating a difficult disease, we need to devote quite a bit of attention to finding answers from the classical texts. Ancient acupuncture classics such as the Divine Pivot, Systematic Classic of Acupuncture and Moxibustion and the many ancient acupuncture odes provide records drawn from extensive clinical research. Within these old texts, we may be surprised to find instructions for treating some quite difficult diseases. If my writing ACTCM 讲演录 has some benefit for those practising today, it is the result of studies and practice guided by ideas from the ancient acupuncture classics.

In your opinion, what are some issues that require attention in the current practice of acupuncture?

I think there are three points for attention at present.

The first is the underestimation of the value of channel theory. The second is a one-sided understanding of acupoint structure (location) and function. The third and final comment is the tendency among acupuncturists to neglect the care and protection of the channels which can then lead to channel exhaustion and confusion.

Can you say a bit more about the first point, ‘underestimating the value of channel theory’?

We might say that the underestimation of channel theory has three aspects. The first aspect is the tendency to deny the physical presence and value of the channels. In China only a tiny minority of people deny the effectiveness of acupuncture. However, doubt about the classical system often comes from the fact that classical texts provide sometimes difficult to penetrate descriptions of the channels. For example, in Divine Pivot, Chapter 1, it states that ‘the divisions [acupoints] are where the spirit qi [energy and blood] moves, exits and enters. They are not [the same as] skin, flesh, sinews and bones.’ Sections such as this have led to a relatively large number of people doubting that the channels actually exist in a modern, anatomical sense. This doubtful mentality, or lack of confidence to the objective reality of the channels, actually prevents many people from understanding and internalising classical channel theory. In a clinical sense, it discourages them from using classical channel theory to analyse and overcome difficulties with diagnosis and treatment.

Here is a true story. In 1972, I went to Shandong Province to attend an academic meeting with three western medical doctors and two Chinese medical doctors. I palpated the channels of one of the train conductors during the trip. Upon examination, I found nodules on LI10 *Shousanli* and ST37 *Shangjuxu* bilaterally which were also very tender to touch. We suspected that he might have a problem with his large intestine and symptoms of diarrhoea or constipation. However, he

denied having any such symptoms and said that he had never had any problems with his digestive system. I told him that he might actually develop symptoms in the next day or so because a disease seemed to have just entered the channels. In other words, the channel changes had not yet developed into symptoms, which he could feel or see. The man wasn't satisfied with that answer though and walked away with an irritated look. A few hours later, however, we were still doing channel palpation for other people in the train when the conductor came running to us saying, 'You guys really are amazing! I've been on the toilet the last half-hour with severe diarrhoea. I never get hit with anything like that. It's pretty stunning that you knew before I even did that there was something wrong with my intestines!' The man sat down next to us and we palpated his large intestine channel again. This time, the nodules on his channels were less large and he reported less tenderness. This story points to an objective reality for channel theory. If we hadn't applied some very basic concepts from channel theory to his diagnosis, how could we have predicted that he had an unseen problem with his large intestine? If there are no channels in the body, then how can nodules and tenderness on LI10 *Shousanli* and ST37 *Shangjuxu* be woven into such a series of events?

The second aspect is the tendency to neglect channel theory during diagnosis. Using channel theory during diagnosis involves analysing a given case history while also performing a physical examination of the channels themselves (察经 *cha jing*). Now, most acupuncture doctors are comfortable with analysing case histories to draw conclusions regarding the cause, location, nature and pathomechanism of disease. The net result of this approach is often termed a *zangfu* diagnosis. However, performing a physical examination of the channels and then making a diagnosis based on the results of this procedure is more often ignored by most acupuncturists.

In Divine Pivot, Chapter 75, it says: 'Before using needles one must first scrutinise the channels to determine excess or deficiency. One must separate [take the pulse] and palpate. One must press and pluck. Observe how the channel responds and moves before continuing. [Only] then select corresponding channel(s) and acupoint(s) to treat and remove the disease.' The use of the terms 'must' and 'first' serves to emphasise the importance of palpating the channels as a necessary prerequisite to diagnosis and treatment. When the text asserts that, 'one must first scrutinise the channels to determine excess or deficiency', it is pointing to this approach as crucial for understanding the nature of a given disease in patients. The text describes specific techniques of 'separating, palpating, pressing and plucking' for channel examination. When palpating, one often finds what might be termed 'abnormalities' along the channel pathways.

In my text ACTCM 讲演录, I repeatedly emphasise the importance of channel diagnosis, explain techniques for channel diagnosis and describe more than ten categories of abnormalities one might find when performing physical examination of the channels. In general, I describe a clinical approach, which involves differentiating the channels based on careful palpation followed firstly by selection of a channel then finally, acupoints for treatment.

In my private practice, I examine the channels of all my patients. This not only provides more clinical data for diagnosis, it also seems to be more objective and reliable. This approach helps me to avoid the temptation to be subjective and one-sided in my diagnosis and thus tends to improve my diagnostic accuracy and curative effects.

For example, I treated a 60-year-old female who had suffered from frequent colds, asthma and cough for years, which had been getting worse during the last three years. Upon presentation, she had been coughing for a week. When the coughing was intense it usually led to the onset of an asthma attack. The coughing was accompanied by expectoration of foamy white phlegm. In recent days, the patient had been unable to climb flights of stairs or to walk for long distances. Abnormal changes found when examining channels included: a deep, hard nodule in the area around LU 6 *Kongzui* with a line of 'bamboo-like' hard painful nodules along the course of the entire lung channel. Another slightly larger and softer nodule was also palpated around LU5 *Chize*. All of the nodules had borders that were relatively undefined and felt slippery under the skin. There was also a narrowing and a tight sensation accompanied by tenderness beneath GV12 *Shenzhu*, and a very tender, soft nodule around BL12 *Fengmen*. All changes except GV12 were bilateral. My diagnosis: *Taiyin* disharmony with some underlying *Taiyang* deficiency. My acupoint prescription: GV12 *Shenzhu*, BL12 *Fengmen*, together with the acupoint pair LU5 *Chize* and SP9 *Yinlingquan*. The patient reported improvement in the chronic cough the day after the first treatment, which gradually improved over the weeks that followed. In the initial stages, the patient came for treatment twice weekly; after three weeks we began to spread treatments out, eventually once every three weeks to maintain good health. Without examining the channels and making channel differentiation, most acupuncturists might not have chosen these channels and acupoints.

Channel palpation also includes a visual inspection of collateral vessels. For example, one commonly finds changes in the two vessels under the tongue and in the vessels around BL 40 *Weizhong*. If the vessels under the tongue become stagnant and exhibit an increase in pressure, there is likely blood stasis in the channels of the head which leads to headaches, dizziness, high blood viscosity and an insufficient blood supply to the brain.

If the vessels around BL40 *Weizhong* turn blue, green or black and seem to also be under increased pressure, this may indicate stasis of qi and blood in the bladder channel of foot *Taiyang*. Symptoms in this case would include stiffness and soreness of the neck and pain in the low back. One of my students told me that he observed the vessels around BL 40 *Weizhong* in many young students when he worked as lecturer at RMIT University in Australia. He found that quite a number of these students had stagnant vessels around BL 40 *Weizhong* that looked blue, green or black. Not surprisingly, most of them complained of stiffness and soreness of the neck and/or low back pain. Distended green or black vessels around BL 40 *Weizhong* can be seen in some children around the age of ten. The earlier these abnormal vessels around BL 40 *Weizhong* appear, the poorer the prognosis is.

This student also mentioned that the vessels on the auricles could be used for diagnosis. For example, congestion or engorgement of the vessels in the lumbosacral vertebrae (auricular point) indicates low back pain, while congestion or engorgement of the vessels around the heart (auricular point) corresponds with heart palpitations, insomnia, irritability and restlessness. He felt that this was true more than 90% of the time.

The final aspect is the lack of rigorous application of channel theory during treatment. In current acupuncture circles, the application of channel theory to acupuncture treatment mainly involves the selection of a local point combined with some kinds of 'corresponding channel point'. This usually means adding acupoints from 'exterior–interior' paired channels or possibly acupoints from the eight confluence acupoints of the extraordinary vessels. Based on channel palpation, a careful differentiation of channel functions and 48 years of clinical acupuncture practice, I have broadened my clinical vision to include other aspects of channel theory. I found that the other parts of channel theory, such as same-name channel theory [e.g. *Taiyin* equates to lung and spleen], mother-son generating channel theory, controlling channel theory and Eight Extra Vessel theory, also have important directive functions in making acupoint prescriptions. In ACTCM 讲演录 we describe 38 acupoint pairs. Some of them were developed using the theories just mentioned. For me, after being tested and modified for years in the clinic, acupoints tend to fall into what I call 'acupoint pairs'. For example, LU9 *Taiyuan* and SP3 *Taibai*, PC7 *Daling* and LR2 *Xingjian* are examples of same-name channel pairs. Another favourite, LU5 *Chize* and KI7 *Fuliu* represent a five-phase mother-son generating channel pair. On the other hand, LU5 *Chize* and PC7 *Daling* are a five-phase controlling channel pair. LU7 *Lieque* and SP4 *Gongsun*, PC6 *Neiguan* and KI6 *Zhaohai* are both favourite Eight Extraordinary Vessel pairs. These acupoint pairs have outstanding therapeutic effects. One of my students told me that he cured a woman with stubborn menopause by using

two acupoint pairs. He alternated between the PC7 *Daling* and LR2 *Xingjian* pair and the LU5 *Chize* and KI7 *Fuliu* pair. Originally, the patient had hot flashes 5–6 times a day, which lasted 3–4 minutes and were accompanied by sweating, severe headaches, irritability, restlessness and a rapid pulse. In addition, she had not responded to herbal treatment. After the fourth acupuncture treatment, all symptoms and signs disappeared. She had a total of ten acupuncture treatments and, six months later, she reported that the symptoms had not returned.

Can you say a bit more about the issue of many acupuncturists having 'a one-sided understanding of acupoint structure (location) and function'?

Many English acupuncture textbooks translate the term *shuxue* (腧穴) as simply 'point'. While the term is certainly useful as shorthand, it conveys a kind of one-dimensionality. The term may lead readers to consider acupuncture points as being defined only by surface location. To me, the use of the term 'point' runs counter to the original meaning of *shuxue* in the classical texts. The 'points' are actually multi-dimensional in the human body.

This term 腧穴 (*shuxue*) is composed of two characters. The first (腧 or 輸) conveys a meaning of 'movement' or 'transport'. The second character (穴) describes a hole where qi might gather, but alone carries a meaning that implies a hole on the surface of the skin. Even in the Chinese language textbooks, we can see that the term has been reduced to the single character *xue* (穴). This necessarily puts greater emphasis on the idea that acupoints are fixed holes without three dimensions under the surface. My experience has been that we should locate the acupoints with an eye to the complexity of their local anatomical structure; taking note of not only surface landmarks, but also the subcutaneous tissue, muscles, tendons, vessels and nerves. This is to say that we should not become over-fixated on body surface (*cun*) measurements. For example, when locating ST36 *Zusanli* most textbooks describe a location 3 *cun* below ST35 *Dubi* and one fingerbreadth lateral to the anterior crest of the tibia. Instead, I locate this acupoint in a space between the anterior tibialis muscle and the long extensor muscle of the toes, lateral to the tibial tuberosity. The use of the limited English term 'point' runs counter to the original meaning of *shuxue* in the classical texts. *Shuxue* are stereoscopic, three dimensional in the human body according to Chinese medicine. By locating like this, I think that it is closer to descriptions seen in texts such as the Yellow Emperor's Cannon of Internal Medicine (*Huang Di Nei Jing*), The Classic of Difficulties (*Nan Jing*), The Systematic Classic of Acupuncture and Moxibustion (*Zhenjiu Jiayi Jing*) and the Illustrated Classic of Acupuncture Points on the Bronze Man (*Tongren Shuxue Zhenjiu Jing*). Even more importantly, I

have found that by needling in this location, there is a better needling sensation, which corresponds to improved clinical effects with a minimum of needling pain.

Another example is GV20 *Baihui*. This acupoint is most often described as being located 1.5 cun posterior to CV21 (or 5 cun superior to the anterior hairline on the midline). I locate this acupoint in the center of the top of the head near the 'hair turns'. This may end up putting the acupoint a bit to the front, behind or even to the left or right in the depression where the patient feels tenderness with pressure. All acupuncture points on the head can be located in a similar way. At this point, I would go so far as to say that most acupuncture points are best located through palpation as opposed to cun measurement. Based on this concept, we have to palpate first to discern both the anatomical structure and positive reactions (tenderness) around each acupoint. By combining palpation-based location with an understanding of the channel on which the acupoint is located, its exterior or interior channels, mother or son channels, as well as the pattern of symptoms and signs, only then can we truly decide where the effective acupoints are located on a given patient. If you are interested, you can read ACTCM 讲演录 for more on this. Nearly all the successful cases described in that text are drawn from an approach which locates channels for treatment and individual acupoints through careful palpation.

Another issue has to do with the functions of the acupoints. Many practitioners limit their understanding to the 'indications' of the acupoints seen in textbooks. As many readers have likely found, this is not the whole story. For example, I notice that most textbooks advocate using GV4 *Mingmen* and SP4 *Gongsun* in cases of chronic diarrhoea. However, many find that they are not effective in some cases. This isn't necessarily because acupuncture won't work for these patients, but because the functional status of the governing vessel where GV4 *Mingmen* is located, and the foot Taiyin spleen channel where SP4 *Gongsun* is located, may influence the therapeutic outcome except syndrome differentiation, acupoint prescription, and needling techniques.

Here's an example. More than ten years ago, I treated a patient who had suffered from chronic diarrhoea for years. She woke in the early morning with 3–5 instances of diarrhoea most days while also experiencing a sensation of urgency. When looking at the approaches used by other doctors she had seen, I noticed that most used warming and tonifying formulae like *Si Shen Wen* (四神丸). With acupuncture, they focused on acupoints such as GV4 *Mingmen* and SP4 *Gongsun*. These treatments had not been effective. After examining her channels, I determined that the governing vessel, spleen and kidney channels were relatively normal. Instead, there were clear changes on the hand yang ming channel. Therefore, I decided to change the

prescription and used LI10 *Shousanli*, ST36 *Zusanli* and ST25 *Tianshu*. The approach achieved surprisingly quick results and finally the patient was cured.

This case demonstrates the very simple concept that, if we can select acupoints from the most affected channel, we can often get therapeutic results, even sometimes getting results which patients call 'miracles'. This is because there is a direct link between diseased organ function and the acupuncture points themselves. Now, of course in many, many cases the so-called 'affected channels' include more than the channel associated with the diseased organ. Many patterns also involve exterior-interior, mother-son, controlling and same-name channels. Examination of the channels will go a long way toward giving an answer as to which channels are affected in a given disease pattern. The case study also tells us that the effectiveness of acupuncture points is relative and conditional. If one moves away from channel theory, then using acupuncture points becomes like an army without a leader or a weapon without control. Therapeutic results will be less than desired. Again, much more is said about the concept of observing, differentiating and choosing channels in ACTCM 讲演录.

Can you please discuss your third point for attention: The tendency of acupuncturists to neglect the care and protection of the channels, which can lead to channel exhaustion and confusion.

We hear some people assert that acupuncture treatments have no side-effects. I strongly disagree with such claims. The most commonly seen side-effect from improper acupuncture treatment is what I call 'exhaustion' or 'confusion' in the channels. The reasons for improper acupuncture are varied. Most often, improper treatments come from incorrect syndrome differentiation, an excess of acupoints used in a given treatment or over-stimulation. Many have noticed that patients who have never had acupuncture have a tendency to get quicker results. Of course, these patients are being compared with patients who have been previously treated with acupuncture on a regular basis. Some have also found that patients who come often may get decreasing levels of improvement as they get more and more treatments. Some have even claimed that non-Chinese patients tend to react more favourably to acupuncture treatment. This may very well be due to the fact that these types of patients have never had interference in their acupuncture channels and are thus less likely to have 'exhausted' channel systems.

In the 1980s, while I was lecturing in Mexico, I treated a female patient who presented with sciatica. She had previously received more than ten acupuncture treatments from other practitioners who used common sciatica acupoints such as GB30 *Huantiao*, GB34 *Yanglingquan* and KI3 *Taixi*. The outcome had not been successful. Initially, I thought it was due to inexact acupoint

location and poor technique. After completing my intake and examining her channels, I concluded that the patient's constitution (both qi and blood) were relatively weak due to the chronic disorder. It seemed that previous acupuncture treatments had been carried out too strongly and harshly, thus further weakening the patient's constitution. In other words, the patient's channel system was exhausted and confused. Because of this, I decided that, prior to addressing the pain, it was essential to first tonify and sooth the flow of qi and blood in order to balance and nourish. The initial three to four acupuncture treatments utilised LI4 *Hegu* and LR3 *Taichong* as primary acupoints to restore and invigorate qi and blood flow. During subsequent clinical visits, I noticed a gradual increase in sensitivity (*deqi*) at the acupuncture points which had previously been used for treating sciatica. For instance,

while needling GB30 *Huantiao* in later treatments, the *deqi* sensation came comparatively quicker, while also radiating down to the toes. Most importantly, her response to treatment became gradually more positive.

This case taught me a lesson. Namely, when treating difficult diseases, particularly those with a lingering and chronic nature, we should investigate not only the symptom pattern, but also the status of the channel system itself. In particular, we should pay attention to any possible signs of exhaustion or depletion before delivering treatment. If there is a state of exhaustion or confusion, we should first regulate the entire channel system and only then address the original problem.

Current Research and Clinical Applications

Chinese Herbal Formula (PHY906) for Modulation of Chemotherapeutic Agents in Cancer Therapy

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BACKGROUND

Cancer has been one of the leading causes of death for the past ten years in Australia.¹ Side-effects from the approved chemotherapeutics for treating cancer, including 5-fluorouracil (5-FU), capecitabine, CPT-11 (irinotecan), oxaliplatin, cetuximab and bevacizumab, not only prevent a patient from receiving the most effective therapeutic dose, but also significantly impact on the quality of a patient's life.

METHODS AND RESULTS

Using modern technologies, PhytoCeutica Inc. and a research team from Yale University developed a Chinese formula (PHY906) containing four traditional Chinese herbs: *Huangqin* (*Scutellaria baicalensis*), *Gancao* (*Glycyrrhiza uralensis*), *Dazao* (*Ziziphus jujube*) and *Shaoyao* (*Paeonia lactiflora*) in the ratio of 3:2:2:2.² The candidate herbs are traditionally used for the management of gastrointestinal ailments including diarrhoea, nausea and vomiting, which are common side-effects of chemotherapies. Their studies have been recently featured in a few major Australian newspapers.

The pre-clinical results demonstrated that in a mice cancer model, PHY906 increased the antitumor activity of the chemotherapy agents, as well as decreased weight loss of the animal. Based on evidence from the pharmacodynamic and pharmacokinetic studies, the research team elucidated that the potential mechanisms of actions of PHY906 may include (1) enhancement of cellular uptake of chemotherapeutic agent via inhibition

of multi-drug resistance mechanisms; (2) modulation of nuclear factor- κ B, cyclooxygenase-2 and inducible nitric oxide synthase activity; (3) inhibition of matrix metalloproteinase activity; and (4) inhibition of angiogenesis.³

With the compelling outcomes from the laboratory studies, PhytoCeutica is working closely with the US Food and Drug Administration through various clinical phases. Since the New Drug Application filed in 2001, two clinical trials (Phase I/II) in colorectal and primary liver cancers have been initiated.^{4,5} A phase I/IIA double-blind, randomised, placebo-controlled, cross-over, dose escalation clinical study of PHY906 as a modulator of irinotecan-based chemotherapy with advanced colorectal cancer has been carried out.⁶ Pharmacokinetic analysis indicated that PHY906 neither altered significantly the therapeutic effects of the CPT-11 nor its active SN-38 metabolite. In addition, the group receiving PHY and chemotherapies experienced significantly less diarrhoea and vomiting than those receiving chemotherapy alone. A second phase I/II clinical study evaluating the effect of PHY906 on the enhancement of the therapeutic efficacy of capecitabine chemotherapy in patients with advanced unresectable hepatocellular carcinoma was launched between 2003 and 2007. The outcomes suggest that PHY906 can increase the therapeutic index of capecitabine by reducing side-effects such as diarrhoea. In addition, four phase II trials are upcoming.

CONCLUSION

PHY906 not only meets the rigorous quality-control standards, but also has been shown in preclinical and clinical studies to have the dual effects of reducing the side-effects of chemotherapy as well as potentiating its antitumor actions. The company is actively pursuing FDA approval for PHY906 to become a botanical prescription medicine for treating serious, life-threatening diseases as an adjunct therapy.

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Cost Effectiveness of Complementary Medicines: Report by Access Economics for the National Institute of Complementary Medicine, August 2010

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BACKGROUND

There is a growing body of scientific evidence supporting the efficacy and safety of complementary medicines. With Australians spending over \$3.5 billion each year on complementary medicines and therapies, evaluation of costs will assist in future directions for disease management and healthcare.

METHODS

The National Institute of Complementary Medicine (NICM) commissioned Access Economics to analyse the cost effectiveness of select complementary medicine interventions for some of the most common and costly chronic health concerns. Due to the varying heterogeneous modalities that the complementary medicine umbrella represents, the report focused on those interventions selected by a reference group 'where a reasonable body of evidence for safety and efficacy was available', reporting on five key areas:

1. Acupuncture for chronic low back pain;
2. St John's wort for depression;
3. Fish oils for prevention of heart disease among those who have experienced myocardial infarction;
4. Fish oils for rheumatoid arthritis; and
5. Phytodolor (a proprietary herbal anti-inflammatory and analgesic) for osteoarthritis.

Access Economics is one of Australia's leading economic forecasting consultancy firms. They presented a highly detailed report using a number of benchmarks to determine cost effectiveness of the selected complementary medicines. These included gross domestic product (GDP) per capita per quality adjusted life year (QALY) and disability adjusted life year (DALY), and reference points in

line with the Department of Health and Ageing and the Department of Finance and Deregulation.

The report included direct health costs only; indirect costs such as productivity losses were excluded. The literature was comprehensively reviewed to identify the effectiveness of complementary medicine therapies compared with usual treatment, best-practice standard care or placebo, with a preference for double-blind randomised controlled trials. To evaluate cost effectiveness, the economic analysis brought together relative expenditure (costs) with outcome measures (effects).

RESULTS

ACUPUNCTURE for chronic low back pain used as an adjunct therapy to standard care significantly increases pain outcomes and overall cost effectiveness of treatment when compared with standard care alone. In individuals with co-morbid depression, an even greater cost benefit would be seen. If indirect costs, e.g. absenteeism from work and reduced work effectiveness, were factored in, the true cost benefits from acupuncture could be up to double the estimated value.

ST JOHN'S WORT for mild to moderate depression, compared with standard treatment was shown to be cost effective. It could potentially save up to \$50 million per annum across the affected population in Australia.

FISH OILS were found to be highly cost effective for prevention of heart disease among those who have experienced a myocardial infarction, and as an intervention to prevent future cardiovascular mortality in Australia.

FISH OILS FOR RHEUMATOID ARTHRITIS as adjunctive therapy were compared with routine care alone. Studies indicated fish oils could reduce patient reliance on non steroidal anti-inflammatory drugs (NSAIDs) without deleterious change in the disease process. From the evidence, fish oils were not considered to be cost effective.

PHYTODOLOR (a proprietary herbal medicine) FOR OSTEOARTHRITIS was compared with Diclofenac (an NSAID). Limited quality evidence was available on the safety and efficacy of Phytodolor. Cost of product was therefore the major determinant of cost effectiveness. It was estimated that using Phytodolor could have a potential cost-saving of up to \$178 million per annum compared with Diclofenac; however, the report encourages more research in this area.

CONCLUSION

The report provides evidence of cost effectiveness in four out of the five evaluated interventions. Except fish oils for rheumatoid arthritis, the report highlights that complementary medicines could save millions in healthcare without compromising on patient outcomes, with added promise if indirect costs are added on.

The report fosters the idea of ongoing research and sets up discussion for complementary medicines in an integrated healthcare practice environment. This report will be an essential tool for assisting governments and researchers to further evaluate the role of complementary medicines in future clinical investigations.

<http://www.nicm.edu.au/content/view/159/276/>

Research Snapshots

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COST-EFFECTIVENESS OF BREECH VERSION BY ACUPUNCTURE-TYPE INTERVENTIONS ON BL 67, INCLUDING MOXIBUSTION, FOR WOMEN WITH A BREECH FOETUS AT 33 WEEKS GESTATION: A MODELLING APPROACH

OBJECTIVE: The aim of this study was to evaluate the effectiveness and costs of using acupuncture-type interventions on BL67 *Zhiyin* compared to usual care for women presenting with a baby in a breech position at 33 weeks gestation.

STUDY DESIGN: A modelling approach was used; therefore a decision tree was developed to predict the number of caesarean sections that could be prevented. There were two strategies for women presenting with breech presentation at 33 weeks gestation: expectant management (a wait-and-see approach with external cephalic version (ECV) offered if required), and the use of acupuncture-type interventions on BL67. Ten thousand women were accounted for in this model. Also included were the medical costs of two ultrasounds for every woman, ECV treatment if required, and costs for pre- and post-natal care until eight days after delivery. The acupuncture treatment included extra costings for two visits with an acupuncturist and the moxibustion sticks supplied for home treatment. Both strategies of this decision tree included an option for women to receive an ECV at 36 gestational weeks and for all births to occur in hospital. Women refusing the option of acupuncture-type interventions on BL67 or not using the moxa treatment at home were also accounted for. The probability

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that women would accept treatment and that babies would remain in a persistent breech presentation were retrieved from a systematic review and meta-analysis of six randomised controlled trials (RCTs) reporting on the effectiveness of acupuncture-type interventions on BL67 versus expectant management. These trials consisted of three RCTs using moxibustion. The remaining three used acupuncture, electroacupuncture and a mixture of moxibustion and acupuncture.

RESULTS: Two data analyses were performed for the women receiving acupuncture-type intervention: one with and one without ECV. Both resulted in a decreased breech presentation at term. To prevent one caesarean section, seven women with breech presentation at 33 weeks gestation would need to be treated with acupuncture-type interventions on BL67. Sensitivity analysis showed that if 16% or more of the women offered moxibustion treatment complied, it was more effective and less costly than expectant management. The cost difference per woman with a baby in breech position at 33 weeks gestation using the moxa around 33 weeks versus no additional treatment was €451 (95% CI €109, €775; $p = 0.005$) eight days after delivery.

CONCLUSION: The authors concluded that offering acupuncture type interventions at BL67 to women with a breech foetus at 33 weeks gestation reduced the number of breech presentations at term, the number of caesarean sections required, and was cost effective when compared to expectant management.

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COMMENT: The lead researcher of this study has published a previous systematic review on the safety and effectiveness of using acupuncture-type interventions on BL 67 for women with breech presentation. This recent research approach is timely, enabling acupuncturists to engage in discussions with medical, midwifery and hospital clinic management staff about the cost effectiveness of implementing acupuncture-type interventions for breech presentation. Being able to enter into such discussions may well be an important factor for acupuncturists to facilitate the integration of acupuncture services within mainstream medical care.

van den Berg I, Kaandorp G, Bosch J, Duvekot J, Arends L, Hunink M. Cost-effectiveness of breech version by acupuncture-type interventions on BL 67, including moxibustion, for women with a breech foetus at 33 weeks gestation: a modelling approach. Complement Ther Med 2010;18:67-77.

Debra Betts

TRANSCUTANEOUS ELECTRIC ACUPOINT STIMULATION HELPS OPIOID DETOXIFICATION

Opioid dependence, as one of the biggest drug problems in the United States, has increased significantly and become a heavy burden on the sufferers and society. The commonly used pharmacological treatment is sublingual buprenorphine combined with naloxone (bup-nx); however, relapse often occurs due to severe withdrawal symptoms. In the 1970s acupuncture was proposed to treat opioid withdrawal. Unfortunately, to

date, its effectiveness has not been fully evaluated in high-quality studies.

OBJECTIVES: To evaluate whether transcutaneous electric acupoint stimulation (TEAS) as an adjunct treatment to bup-nx could (1) help patients with opioid dependence maintain abstinence from drug use; or (2) improve withdrawal symptoms, physical pain and health status.

STUDY DESIGN: Participants aged from 18 to 59 years old were recruited from inpatients admitted to the McLean Hospital (Belmont, MA) for opioid detoxification. Participants were randomly assigned to receive three 30-minute real or sham TEAS sessions per day for four days. Apart from standard treatment of bup-nx, TEAS (2 and 100 Hz) was delivered via skin electrodes on the palmar and ventral sides of LI 4 Hegu and dorsal and ventral surfaces of PC6 *Neiguan*. In the real TEAS group, the intensity of stimulation was adjusted gradually to strong but comfortable level. In the sham TEAS group, the intensity was set at 1 mA, which was undetectable by the participants.

RESULTS: Of 177 patients admitted to the hospital, 55 were randomised; 48 of these 55 participants (33 males and 15 females), with an average of 24 days of opioid use in the past 30 days, completed the study. The baseline data was comparable between the two groups. In the first two weeks after being discharged from the hospital, the real TEAS group (1) were more than twice as likely to maintain abstinence from any drugs and opioids ($p < 0.05$); (2) had greater decreases in pain interference between baseline and discharge ($p = 0.01$); and (3) had more improvement in physical health ($p = 0.01$) than the sham TEAS group did.

CONCLUSION: TEAS, as a simple, inexpensive adjunct treatment with minimal side effects, can be implemented in an inpatient unit or

self-administered by patients. It could be a beneficial adjunct to pharmacological opioid detoxification.

Meade CS, Lukas SE, McDonald LJ, Fitzmaurice GM, Eldridge JA, Merrill N, Weiss RD. A randomized trial of transcutaneous electric acupoint stimulation as adjunctive treatment for opioid detoxification. J Subst Abuse Treat 2010;38(1):12–21.

Yanyi Wang

CHINESE HERBAL MEDICINE (CHM) MAY PROVIDE THERAPEUTIC EFFECT FOR MILD COGNITIVE IMPAIRMENT (MCI) AND AGE ASSOCIATED MEMORY IMPAIRMENT (AAMI)

OBJECTIVE: To evaluate both the therapeutic and adverse effects of CHM formulae for MCI and AAMI.

METHODS: The Cochrane Central Register of Controlled Trials in the Cochrane Library, Pubmed, EMBASE, Elsevier BIOBASE and CQVIP were electronically searched to February 2007, and relevant journals in the library of Guangzhou University of Chinese Medicine were hand searched in September 2007. Studies considered were randomised controlled trials (RCTs), quasi-RCTs in English, Japanese, Chinese or German on memory or other impairments consistent with MCI and/or AAMI comparing CHM (excluding Ginkgo biloba alone) with placebo, using no intervention or active intervention.

RESULTS: 2638 potential titles and abstracts were identified and ten studies, involving 754 participants, were included. Jadad score of the included studies ranged from 1 to 5 with a mean of 2.6; all studies mentioned randomisation in their methods but not all provided the appropriate description of the randomisation method. Sample size ranged from 44 to 126. CHM was better than placebo on improving memory quotient (MQ), hippocampal

volume, beta amyloid, and mini-mental state examination (MMSE). CHM was better than hydergine in improving results of cognitive capacity screening examination (CCSE) and functional activity questionnaire (FAQ). Hydergine is a nootropic drug used to improve dementia and age-related cognitive impairment. CHM was better than no treatment in improving six or ten subscales of Wechsler's memory scale (depending on whether CHM was low or high dose respectively), and MQ. Compared with Ginkgo biloba, CHM was either no different when assessed with MQ and a range of biomedical markers or slightly better than Ginkgo biloba when assessed using the clinical memory scale (CMS). Meta-analysis of three studies showed that, in comparison to piracetam, CHM was as effective as piracetam (WMD: 0.37, 95% CI: -0.21–0.95) in improving MMSE. Compared with a combination of piracetam and donepezil, CHM was better in MMSE assessment. Piracetam is a nootropic drug and donepezil is an acetylcholinesterase inhibitor. Both medications have been shown to improve cognitive impairment. No serious adverse events were reported in four out of ten studies; the other six studies did not record adverse events. The categories of the CHM formulae were tonifying qi and blood, tonifying yin and yang, moving blood, clearing deficient heat and calming the mind. No particular formula was used more often than others.

CONCLUSION: This review provides preliminary evidence on the effect of CHM on MCI and AAMI. Further investigation through larger, longer-term multi-centre, placebo controlled RCTs is warranted.

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Shao-chen Lu

Book Reviews

An Exposition on the Eight Extraordinary Vessels

By Charles Chase and Mika Shima
Eastland Press, 2010
ISBN 9780939616695

The understanding and use of the extraordinary vessels (EV) in Chinese medicine has always been shrouded in a cloak of mystery and has at times been the subject of ignorance in English-speaking countries. Very little has been published in English concerning their use and function, and where this has occurred it has often been speculative and not based in classical readings. Most acupuncture texts, including Chinese published books, have few pages dedicated to them. They often include several channel diagrams and cursory information associated with their use. The exception is Birch and Matsumoto's *Extraordinary Vessels*, published in 1986, which did attempt to ground the information from reliable classical sources. It is with this in mind that I was keen to read the translation by Chase and Shima of Li Shi-Zhen's *An Exposition on the Eight Extraordinary Vessels*.

This 500-page text not only includes the translation but has a wealth of additional information inserted by the authors to assist the reader and expand on many of the concepts associated with Li Shi-Zhen's understanding and clinical use of the EVs. While the translated text itself focuses on the use of the EVs in herbal medicine, much relevant information associated with their use in acupuncture has also been included by the authors. The text is divided into five main sections. The first section (chapters A–G) places the

text in its historical context and includes information on the role that internal alchemy played in the development of the EVs, as well as pivotal ideas on pulse diagnostics associated with their use. Indeed, the information in these initial chapters is thought provoking and the authors do well to raise many interesting questions which they often attempt to answer and explain. The second section is a translation of the text. Each of the EVs is introduced individually and is followed by a subsequent chapter on the diseases associated with the particular EV. Each chapter includes both the original Chinese (for those interested in contrasting the translation with their own interpretation) and the English translation. The translation also includes the two chapters on 'The Pulses of the Nine Pathways of the Qi Opening' and 'An Explanation of Pronunciation' (chapters 17 and 18). The third section gives the authors' scholarly interpretations and commentaries on each of the translated chapters. In doing so Chase and Shima give the reader an insight into the thinking and ideas underlying the concepts expounded in the text. The authors often compare sections of the text with other classical sources and ideas from other Chinese physicians and scholars. This allows a very rich and detailed understanding which would have been impossible had the translation been published as a stand-alone piece. This section for me is the centrepiece of the text and deserves close reading and reflection by the

reader. Section four, titled 'Legacy of the Exposition on the Eight Extraordinary Vessels', looks at how these writings affected the development of EV concepts in the practice of herbal medicine, acupuncture and internal cultivation. Consisting of six chapters (33–38), this section introduces the reader to the evolution of Li's ideas and how they have been applied. Several clinical case studies have been included to allow readers to see how later physicians such as Ye Tian Shi incorporated Li's concepts into their own theories and practices. The fifth and final section includes several appendices. These include the acupuncture holes of the EVs, EV herbal formulae, single medicinals entering the EVs, Li Shi Zhen's synopsis of EV pulses from the *Pulse Studies of the Lakeside Master*, a listing of editions of the text (in Chinese) and finally a table of the people and texts cited in the original. Add to these copious notes for each chapter and a bibliography and index and you have a highly readable and informative book.

This text is a definitive English translation and will have much to offer both the practitioner and the historian. It makes an important addition to the growing list of professional translations of key Chinese texts available in English and will greatly contribute to a deeper understanding of the EVs by TCM practitioners in the western world.

Reviewed by Chris Zaslawski

Essentials of Chinese Medicine

Edited by Liu Zhanwen and Liu Liang
Springer, 2009 ; 3 volumes
ISBN 978848825895

This three volume set represents a systematic and structured attempt to present the basic concepts of Chinese medicine (CM). Edited by two Chinese researchers and educators – Liu Zhanwen from the Beijing University of Chinese Medicine and Liu Liang from Hong Kong Baptist University – and supported by a large team of international advisors and two English language consultants, the texts survey a large swath of information ranging from basic theory and diagnostics to acupuncture and herbal medicine therapies and their clinical application. The aim of the book project was to produce a set of high-quality text books in English for the study of CM. What makes this set of books unusual is the process used to produce the three volumes. On initiation of the writing project, a consortium of CM institutions, primarily from China but including also one American university (Ohio University), was charged with identifying a key member to write a chapter based on their field of speciality. The author was then required to submit a Chinese and English version of the chapter which was then evaluated and revised by experts who were competent in both Chinese and English language as well as CM. This process took nine years and as noted in the foreword 'the execution of the entire process was extremely time consuming and tedious. It has proven to be a very meaningful, if not ground breaking move, which makes the text truly different from publications of a similar nature.' This has meant the production of a detailed and clearly written set of textbooks that can be accessed by English language students.

Volume 1 consists of 11 chapters separated into two sections, one on basic theories and the other on the diagnostics and

treatment principles of CM. As a textbook for students, each chapter identifies the aim and objectives for study for that chapter as well as exercises for student review. Covered are yin/yang theory, five phases, the vital substances, concepts of illness and the *zangfu* manifestation theory. Supported by line drawings, theoretical concepts are exemplified and presented visually. The second section focuses on the diagnostic methods, as presented through the four methods and the eight principles. The different *zangfu* patterns are then highlighted and herbal medicine treatment principles applicable for common eight principle methods are detailed.

Volume 2 consists of three sections. Section 1 concerns the theory and application of acupuncture. Both meridian theory and point location for all the major acupoints are listed. Specific properties of acupoints are discussed as are the different applications of electroacupuncture, scalp and auricular acupuncture and moxibustion and cupping. Section 2 introduces the Chinese herbal materia medica and gives a detailed description of 174 herbs commonly used in clinical practice. Both pharmaceutical and Chinese name are given as are the Chinese characters. Listed for each herb are the flavour/nature, meridian affinity, actions, indications, dosage, and cautions and contraindications. Section 3 introduces the principles of constructing a herbal prescription and a detailed analysis of 84 frequently used herbal formulae are presented. Good use is made of case histories drawn from Chinese medical journals for many of the herbal formulae.

Volume 3 revolves around the clinical application of acupuncture and herbal medicine for 69 common diseases.

Grouped under the six CM speciality categories of internal medicine, gynaecology, paediatrics, dermatology, ear-eyes-nose-throat, and emergency conditions, each of the 69 diseases are differentiated according to CM principles and treatments using both herbal medicine prescriptions and acupuncture methods are presented. The clinical manifestations and key points of differentiation are documented and each disease also has one or more case studies which facilitates student understanding of the clinical application of the prescriptions. There are several appendices to this volume, including a listing of the acupoints and herbal substances. This allows cross referencing between the Latin, pinyin, English and Chinese names of herbs as well as the alphanumerical listing and Chinese names for the acupoints. Also included as an appendix are glossy colour photographs of the plant and processed herb for many major herbal substances.

The three volumes are well laid out and easy to read. The hardcovers will ensure longevity of use and an index in each volume allows searching within each text. These three volumes are well suited for the student and cover all the essential information for student learning, from introductory concepts to later stage clinical application. While focusing on the undergraduate student, the texts would also suit the beginning practitioner, especially volume three, which is suitable for self-directed study. The editors have done a skilful job in covering a large amount of information in a systematic and clear manner that will facilitate student learning and set the standard for English language CM textbooks in the future.

Reviewed by Chris Zaslowski

Acupuncture in the Treatment of Pain: An Integrative Approach

Edited by Marcus Bäcker and Michael G Hammes

Translated by Velia Wortman

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First published in 2005 in German under the title *Akupunktur in der Schmerztherapie: Ein integrativer Ansatz* this new English text is an excellent introduction to the area of integrative medicine and the treatment of pain. Suitable for both the student and the experienced practitioner, the layout of the text makes it easy to use, with clear diagrams, table summaries and ample referencing throughout the text.

The text is divided into two main sections. Part 1 contains chapters on the basic concepts and gives a good explanation of pain from the western medicinal (WM) perspective. Those interested in gaining a good understanding of the different types of pain and their neural and physiological mechanisms underlying pain modulation will appreciate this section. Following this are chapters on the understanding of pain within the traditional Chinese medicine (TCM) paradigm, while subsequent chapters contain information on TCM

differential diagnosis, guidelines for TCM treatment, acupuncture, channels and important acupuncture points and further treatment options in TCM (Chinese herbal medicine, dietetics, tuina, qigong). Part 2 contains chapters on clinical pain syndromes and included content areas such as head and face pain, locomotor system pain, fibromyalgia, visceral, neuropathic, vascular disease, palliative care, psycho-vegetative complaints and psychosomatic aspects of pain.

Each chapter begins with a very clear statement on general principles or guidelines and a definition or introduction to the pain syndrome. This is followed by the editors' or contributing authors' personal opinion on the value of acupuncture for the treatment of the condition. Further information is then given concerning WM epidemiology, clinical presentation, pathophysiology, differential diagnosis, potential treatment options and prognosis. Finally

the authors document the treatment protocols with acupuncture, TCM pattern differentiation and additional TCM treatment options.

What I found useful about this book is the integration of WM and TCM. You never hear a patient in pain present at the clinic saying I have 'damp obstructing the channels'. Rather they present with a diagnosis in WM terms. This book is good for updating clinical knowledge about pain conditions, the potential range of treatments (e.g. counselling, physiotherapy, medication), while at the same time offering the TCM perspective and treatment principles of acupuncture, Chinese herbs, tuina and qigong. Overall, an excellent book, worthy of a place on your desk, and one that I do not think will be left to gather dust on the bookshelf!

Reviewed by John Deare

Conference Reports

Australasian Acupuncture and Chinese Medicine Annual Conference (AACMAC)

Adelaide, Australia
21–23 May 2010

Peter Ferrigno

This year AACMA held its twelfth annual conference in Adelaide. In welcoming participants, the AACMA president, John Deare, noted that more than two hundred delegates would be attending the conference. A small contingent of overseas participants also attended: from Germany, Korea and New Zealand. As in previous years, the main conference was preceded by the cocktail party on Friday evening, which allowed most participants the opportunity to catch up with colleagues from past conferences and to make new friends as well. Friday was also the time to attend one of the many scheduled practical workshops (in distinction to the short presentations on Saturday and Sunday), where practitioners could listen and learn some new techniques or different treatment approaches to some difficult-to-treat conditions from their colleagues.

We witnessed around fifty offerings at the conference, covering a broad range of interesting topics: techniques in clinical practice, research findings (both quantitative and qualitative), professional issues and implications for the future of Chinese medicine (CM) practice. Of significance is that the AJACM is intending to publish some of the conference offerings in the foreseeable future, which will add to a more global profile of CM as it is practised in Australia. Zhen Zheng reported on the National Pain Strategy, a project on which the Chinese medicine

profession has collaborated with other healthcare providers with a view to situating acupuncture in particular as part of primary healthcare provision for people with pain. It is worth noting that the nexus between acupuncture and pain has been receiving increasing media attention.

One of the keynote speakers this year was Gunter Neeb, well known for his translation of the text *Blood Stasis* (reviewed in AJACM Vol 3, issue 1). Dr Neeb presented on the topic of *Huo Shen Pai* (the fire-sprit school), a Chinese herbal tradition of using very hot natured herbs to treat hot symptoms due to the flaring of ministerial fire. Another interesting presentation (Judy James) was on the Traditional Chinese Medicine Endangered Species Certification Scheme (ESCS), which is an innovative program funded by the Commonwealth Department of the Environment, Water, Heritage and the Arts (DEWHA) and administered by AACMA. Ms James outlined the practitioner benefits of being accredited by such a scheme as well as the need for the TCM profession to raise the profile of the initiative by informing the public of the responsible role AACMA members take in dealing with this serious threat to endangered species.

Saturday evening saw the gala dinner, which was held at the Adelaide Wine Centre. This gave all participants and their partners an opportunity to sample

fine South Australian wine and food, and dance the night away. A highlight on the evening was the launch of the third and final volume of Will Maclean and Jane Lyttleton's *Clinical Handbook of Internal Medicine, Volume 3: Qi Blood Fluid Channels*.

Repeated again this year was a panel discussion where several well-known practitioner and academics were asked to give a short presentation and then respond to audience questions. Of particular interest was the discussion among practitioners of significant changes occurring in the profession, which will quite likely have profound effects on the future practice of CM Australia-wide. Foremost among these changes is the move to a national licensing system for practitioners of Chinese medicine and acupuncture. As an organisation that has been in existence from the very beginnings of acupuncture practice in Australia, AACMA (and its forebear Acupuncture Ethics and Standards Organisation Limited) has essentially taken on a dual role: accrediting/registering practitioners and functioning as a professional association, hosting such activities as conferences, workshops, seminars, etc. For AACMA in particular, given that its accrediting role will be formally taken over by a national authority, a significant challenge will be how it (re)defines its role as an association representing its members and profession.

Paralleling this challenge is what we could refer to as 'boundary disputes' and 'ownership' of ideas and practices. Specifically, this challenge refers to the controversial practice now identified as 'dry needling': a way of practising acupuncture without using the word itself, a term proscribed, at least in Victoria, by the CMRB. Presumably, when the national registration comes into existence the new registration board will take a similar view and proscribe the term. The new board's attitude and action on the practice of dry needling will indeed be watched with interest. AACMA's presence and influence in this boundary dispute is likely to be a crucial one.

The other area of continuing debate alluded to by some conference presenters was similar in nature to the question which Heiner Fruehauf has posed: where is Chinese medicine going? To what extent are its medical ideas, especially those relating to its classical origins, being weakened and will Chinese medicine become 'biomedicalised' in research approaches and in its theoretical bases? As John Deare cogently argues, one response would be to increase publications with a more classical Chinese medicine perspective. Similarly, in a recent interview Volker Scheid

argued that we should resist the structural and cultural pull towards what he refers to as 'technique and standardisation' and more importantly we should take a firm hold of the ideals implicit in the scholarly Chinese medical tradition. The possible consequence is if we do not, Chinese medicine may become so transformed that its theoretical foundations will be lost or made unrecognisable. Again, as a professional association, AACMA's role will be a critical one. At the same time, individual practitioners are being exhorted to contribute more and become published. Participants at the 2011 conference to be held in Perth may provide us with further responses to these questions.

Participants also had the opportunity to view academic posters across the two days and as in past years presenters were awarded prizes across several categories. The prize for over-all best paper went to two joint winners this year. These were Stephen Janz for his paper 'Plantar fasciitis: an update on acupuncture and conventional treatment methods', and Paul Movsessian for his paper 'Abdominal diagnosis and point selection: bridging TCM with Japanese style acupuncture'. The best research/scientific paper was awarded to Byeong Sang Oh for his

paper on a 'Randomised, controlled pilot trial of electroacupuncture for nausea, vomiting and myelosuppression in women receiving adjuvant chemotherapy for early breast cancer'. Clare Pyers was awarded the best paper on clinical practice for 'Disambiguating psoriasis: a closer look at the role of the heart, small intestine and kidneys'. The best poster prize was presented to Johannah Shergis for her poster on 'The role of Chinese herbal medicine in the management of chronic obstructive pulmonary disease (COPD)' and an honourable mention for first presentation at a conference was given to Dan Hall for his paper 'Acupuncture point injection therapy in Australia'.

The TCM industry was also well represented with suppliers and manufacturers making up a diverse trade display incorporating acupuncture needles, herbs, lasers and other clinical supplies.

Again the conference gave the opportunity to promote academic exchange and to encourage debate and dialogue within the profession but also for the renewal of friendships and networks between individual practitioners, academics and researchers.

International Congress on Complementary Medicine Research: Complementary Medicine for the Chronically Ill

Tromsø, Norway
18–21 May 2010

Ben Colaguri and Suzanne Grant

The fifth International Congress on Complementary Medicine Research (ICCMR) was hosted by the National Institute of Complementary Medicine, University of Tromsø, Norway. Tromsø lies a mere 2000 kilometres from the North Pole, with a latitude of 70 degrees north: luckily for the delegates it was summer! Tromsø was an absolutely beautiful setting for the conference. Although the constant daylight took a little adjusting to, it created a somewhat mystical atmosphere to explore the polar museum, eat delicious seafood and hear about the latest in complementary and alternative medicine (CAM) research.

The Congress is organised annually by the International Society for Complementary Medicine Research, ISCMR. ISCMR is an international scientific organisation of researchers, practitioners and policy makers that fosters complementary and integrative medicine research and provides a platform for knowledge and information exchange to enhance international communication and collaboration.

Around 400 researchers from 35 countries gathered for ICCMR 2010. The conference was an exciting blend of the latest research findings (both clinical and basic research) in CAM and a forum for discussing basic evaluative concepts, methodologies, and strategies appropriate to CAM. This year's Congress focused on exploring research on complementary medicine for the chronically ill. Topics covered many different CAM modalities, including Chinese herbal medicine, acupuncture, homoeopathy, meditation, osteopathy, yoga and integrated care

programs. With four to five sessions running at any one time, it was often a challenge to decide which one to attend. Parallel sessions that ran over the course of the conference were thematically grouped to cover areas including paediatrics, cardiovascular disease, diabetes, fibromyalgia, and economic issues.

Several papers were presented examining the use of acupuncture in the treatment of fibromyalgia (FM). In a systematic review presented by Huijuan Cao (Beijing University of Chinese Medicine), it was reported that TCM therapies appear to be effective in treating FM, especially when combined with conventional medications. The conclusion, however, echoes many systematic reviews of acupuncture interventions, that is, that due to the methodological flaws in the included trials, further large, rigorous trials are required to strengthen the evidence.

A number of papers were delivered on clinical research in diabetes, including my (SG) own paper. This paper reported on a randomised controlled trial (RCT) of a Chinese herbal medicine (CHM) in the treatment of impaired glucose tolerance (IGT) and insulin resistance. This trial found that CHM increases insulin sensitivity compared with placebo. In another RCT, Nerida Klupp (University of Western Sydney) reported on *Ganoderma lucidum* for the treatment of hyperglycaemia in persons with type II diabetes and metabolic syndrome. The study failed to find any significant difference between placebo and active interventions.

While not strictly within the realm of 'chronic disease', several papers reported on research on hot flashes in menopause. Results from a trial of 267 postmenopausal women in the Norwegian ACUFLASH study showed that individualised acupuncture treatment and self-care contributed to a clinically significant reduction of hot flashes at 12 weeks, but that there was no difference after treatment ceased at 6 months or 12 months.

Another paper of interest to fellow acupuncturists was 'Does needling sensation (*deqi*) affect treatment outcome in pain?' presented by Peter White (University of Southampton, UK). This question about acupuncture seems to be about as old as acupuncture itself. In this study the importance of the strength of *deqi* was assessed in relation to the clinical outcome in osteoarthritic pain. Interestingly, there were no significant correlations between strength of *deqi* and improvement in pain. There was also no significant difference between those who felt *deqi* and those who felt no *deqi* in relation to pain relief. This led researchers to conclude that the presence and intensity of *deqi* has no effect on the amount of pain relief experienced by patients with OA. This robust result would appear to have implications for acupuncture treatment or at least will spark further debate over this controversial topic.

There were two sessions dedicated to complementary medicine in cancer. Marja Verhoef (University of Calgary, Canada) presented a pilot study aiming to better understand cancer patient's pathways of care using both qualitative

and quantitative methods. Shea Buckman (National Cancer Institute/Office of Cancer Complementary and Alternative Medicine, USA) discussed the limited number of evidence-based patient education materials available to cancer patients on CAM and highlighted the need for developing and evaluating both print and online publications to facilitate cancer patients making informed decisions. Puladan-Müller (Danish Cancer Society) presented a systematic review of reviews and meta-analyses of biologically based complementary medicine practices for cancer patients and raised some interesting question regarding how best to communicate evidence to cancer and other patients considering using complementary medicine.

There was a very interesting session on trial design for complementary medicine research with some alternatives to the traditional parallel randomised placebo-controlled trial being presented. Reiner Kaschel (Centre for Neuropsychology, Germany) and Sunita Vohra (Children's Hospital of Eastern Ontario, Canada)

discussed the relative advantages and disadvantages of N-of-1 trials, in which only one patient is recruited and studied. Clare Renton (University of Leeds, UK) also presented a new approach to pragmatic RCTs in which patients are recruited to an observational study with random samples being taken from this cohort to form intervention groups, thereby providing a more naturalistic control group than either waitlist controls or no treatment controls groups. It was great to see a large audience in this session and an enthusiastic discussion about such an important issue facing not just complementary medicine but also medical research in general.

One of the most interesting general themes that emerged over the three-day conference was the dialogue on appropriate models for CAM research. An example is the aptly title paper presented by Claire Cassidy from the United States on 'How acupuncture is actually practised and why this matters to clinical research design'. CAM researchers often find conducting research within a biomedical framework

leads to disparities between how CAM is delivered in practice and how it is delivered in a clinical trial. Several sessions (including a full-day workshop) explored whole-system research models so as to establish models for evaluating complex CAM interventions, both qualitatively and quantitatively, and develop program theory to assess integrated CAM treatments. This exploration of alternative methods of assessment to standard RCTs is important for evaluating CAM as it is delivered in practice.

Next year's ICCMR will be held in Chengdu in the beautiful Sichuan province, 7–9 May 2011. The theme is evidence-based medicine in CAM, a topic that is bound to stimulate further debate on what are appropriate models for researching CAM that accurately reflect clinical practice.

If readers wish to learn more about some of the papers that were presented, the book of abstracts is freely available from the conference website: <http://www.iccmr2010.com>.

UPCOMING INTERNATIONAL CONFERENCES

2011

- 7–9 May Chengdu, China
6th International Congress on Complementary Medicine Research
(International Society for Complementary Medicine Research)
<http://eng.2011iscmr.org>
- 20–22 May Perth, Australia
AACMAC 2011
(Australian Acupuncture and Chinese Medicine Association Annual Conference)
Visit <http://www.acupuncture.org.au>
- 31 May–5 June Rothenburg, Germany
42nd TCM Kongress
(Arbeitsgemeinschaft für Klassische Akupunktur und TCM e. V)
Visit <http://www.tcm-kongress.de>
- 24–26 June Wellington, New Zealand
NZRA Annual Conference
(New Zealand Register of Acupuncturists)
Visit <http://acupuncture.org.nz>
- 1–4 September 3rd Scandinavian TCM Kongress
Slettestrand, Denmark
Visit <http://www.tcm-kongres.dk>
- 2–3 September London, United Kingdom
WFCMS 8th World Congress on Chinese Medicine
(World Federation of Chinese Medicine Societies)
Visit <http://www.2011wccm.com>
- 5–6 November Sao Paulo, Brazil
WFAS International Symposium on Acupuncture 2011
(World Federation of Acupuncture-Moxibustion Societies)
Visit <http://wfas2011saopaulo.com>

2012

- 18–20 May Brisbane, Australia
AACMAC 2012
(Australian Acupuncture and Chinese Medicine Association Annual Conference)
Visit <http://www.acupuncture.org.au>