

Australian Journal of Acupuncture and Chinese Medicine

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Editorial

I am encouraged by the responses we received after the publication of the last issue. Our readers were mostly intrigued by the reply to Madsen's review and the discussion on the future of Chinese medicine. Those papers addressed the same theme; that is, how Chinese medicine will progress from here. Do we need more gold standard randomised controlled clinical trials, or more attention to clinical practice? Do we need more research to identify active constituents of Chinese medicinal herbs and to understand the mechanisms of their actions, or should we return to the classics, to the ancient teachings?

Most clinicians might not be concerned with these questions. However, I am frequently pressed for answers by eager students. There are so many avenues which Chinese medicine may take, just like the variety of treatment options we often have in the clinic. The question I am asked is which pathway we should take and which is the best way to go forward.

AJACM, in spite of being a young journal, has inherited strong pre-natal *qi* from its creators and has grown and matured quickly. AJACM considers all the avenues important for the development of Chinese medicine, whether using modern technologies or returning to its ancient past. We see the necessity of *qu chang bu duan*, that is, to use 'the strengths of others to complement the shortcomings of ourselves'.

One such example is the paper on the reporting quality of *Shang Han Lun* (Treatise on Cold Diseases) education. The authors used a modern research method, a systematic review, to address common educational problems of the *Shang Han Lun*, a classic work that can be difficult to teach, to learn and to master. Whoever teaches this subject needs both in-depth understanding of ancient Chinese language and clinical skills so as not only to be able to translate the texts into modern Chinese, then into English, but also to interpret the text in the context of clinical experience. The authors focused their research on the reporting quality of *Shang Han Lun* educational studies, but I am confident that their findings will ultimately lead to improved teaching practice for classic literature. My confidence comes from how the CONSORT statement, which was originally designed to improve reporting quality of clinical trials, has transformed clinical research reporting and increased the bar for trials.¹

Another example is the paper on Chinese herbal medicine for endometriosis. The authors observed and reported the clinical effect of a formula. More importantly they used modern laboratory technology to test the changes in the physiological markers, providing ground for further exploration of the herbs. Such information, as indicated by the Letter to the Editor, is urgently needed by our practitioner readers.

This issue also brings you a case study from a new practitioner on the treatment of male infertility caused by obstructive azoospermia, a condition that often requires surgical intervention to assist fertilisation. It is an understudied area of Chinese medicine. I have no doubt that both clinicians and researchers will find this case interesting and inspiring.

Following on from our last issue, we publish an interview of a famous Australian acupuncturist, our very own Xuejian James Liu from Victoria. Dr Liu has extensive clinical experience in China, Australia and other countries. In the paper, the authors ask all the essential questions that every acupuncturist wants to know. For instance, are there ethnic differences in the experience of *deqi*? Between needling techniques and point selection, which is more important? How should a practitioner cope with down time when patients do not respond to the treatments? What does one do when managing a difficult case? We hope this piece will bring some fresh ideas to young practitioners.

The Endangered Species Certification Scheme (ESCS) has been running for two years now. This is an important project funded by the Australian government to promote awareness and compliance with the legal requirements of international trade in endangered species of wild flora and fauna and to recognise ethical practitioners, educators, researchers and traders of Chinese medicine. The project manager and CEO of the Australian Acupuncture and Chinese Medicine Association Ltd sums up the background and mechanisms of the ESCS as well as how individuals and organisations can participate in the scheme.

Finally, please do not forget to read the research snapshots, current research reviews and book review sections. The reader will be interested to see the debate on the role of acupuncture

in stopping smoking and double blinding strategies in Chinese herbal medicine research.

We are interested to know your thoughts on the role of research in the development of Chinese medicine. Please remember to write to us and share your views.

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Zhen Zheng
Editor-in-Chief

Letters to the Editor

Dear Editor

I am writing to you to tell you that having just read this edition of AJACM I found it easy to read. I believe it is important to have 'easy to read plain language articles' as I am not someone steeped in research nor someone that is as yet well versed in the language of research papers. Articles such as 'On the Psychological Significance of Heart Governing Shen Ming' by Lifang Qu and Mary Garvey, was informative, but perhaps of more importance to one such as me that is not 'into' research papers was the review 'Response to: Madsen MV, Gotzsche PC, Hrobjartsson A. Acupuncture Treatment for Pain: Systematic Review of Randomised clinical trials with Acupuncture, Placebo acupuncture, and no Acupuncture Groups'. This was important to me as one wedged firmly between research and the public, as it gave me a dissection of research papers that were in contrast to what we see in practice. This is of great value to me in my clinic as I am then able to tell my patients why this can be. At the end of the day, is not the reason for research to inform and educate not just the academic but also the person at the coalface with the public?

Ian Dummett
Tasmania

Dear Editor

RE: Response to: Madsen MV, Gotzsche PC, Hrobjartsson A, Acupuncture Treatment for Pain: Systematic Review of Randomised Clinical Trials with Acupuncture, Placebo acupuncture, and No Acupuncture Groups

Bravo for your response to the Denmark article on pain & acupuncture. Not only do I appreciate sensible articles regarding Chinese medicine, your rebuttal really gave me a different perspective to the content of the Denmark article. I think it is so easy for scientists and clinicians alike to read papers with a 'tunnel-like' vision (and I do admit to this at times, although I like to think I am flexible to new evidence and ideas).

Elisa Loi-Yan Yip
Victoria

Quality of Reporting in *Shang Han Lun* Educational Research: A Systematic Review

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ABSTRACT

Objective: To evaluate the reporting quality of original studies in *Shang Han Lun* education. **Methods:** Eight English databases relating to medicine and medical education and three Chinese databases were searched using *Shang Han Lun*, Chinese medicine classic literature, education, teaching and learning and their synonyms as keywords. Research reports of educational interventions in *Shang Han Lun* teaching and learning in Chinese medicine programs were included (English and Chinese). Information on reporting structure was extracted and reporting quality was assessed by two independent authors using a pre-defined checklist. **Results:** 163 papers were identified. Eleven papers in Chinese were included in the data analysis. Their structures were varied and generally unclear. Research reporting was also insufficient, in numerous cases, since essential elements, such as research question, rationale, research design, intervention, evaluation and results, were not provided. **Conclusion:** Reporting quality of *Shang Han Lun* educational research was generally very poor. Reporting standards should be established and a checklist of reporting criteria is recommended for future study.

KEYWORDS Reporting quality, Chinese medicine, *Shang Han Lun*, education, teaching and learning.

Introduction

Research in the field of medical education matters.¹ It is as important to research the education of new doctors and practitioners as it is to assess a new chemotherapy or herbal medicine.² With the introduction of Chinese medicine (CM) to the formal medical education system in China and other countries in the past few decades,^{3,4} and with the endorsement of evidence-based practice^{5,6} in the recent decade, there is also a need for CM education to move from an opinion-based to

an evidence-based footing.⁷ This shift could be expected to produce clinically more competent practitioners^{8,9} and better patient care.¹⁰

High quality educational research is crucial to the development of evidence-based educational practice.^{11,12} Deficiencies in reporting quality have been identified in previous studies of general education,¹³ medical education¹⁴ and other disciplines.^{15,16} Although the reporting quality of original studies does not necessarily represent the actual methodological

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quality,¹⁷ it has been agreed that a high quality of reporting is a prerequisite to the understanding of the study methodology and the application of the results of the study.¹⁸ Reporting criteria of educational research can vary according to the study design. Interventional studies, or experimental studies, are considered the gold standard in evaluating the outcomes of instructional interventions in education.¹⁷

A recent review on published guidelines for reporting interventional studies on medical education¹⁹ summarised the methodological challenges in conducting a systematic review in this field.^{7,20-23} The checklist of basic elements to be included in a report that was recommended in this paper included: research question, rationale, objectives, study design, intervention, evaluation and results. However, little is known about the reporting quality of educational research in CM. We have not identified any systematic reviews on CM educational studies or any paper on the evaluation of the reporting quality of educational studies in CM.

Shang Han Lun is a key subject in CM classic literature and is an essential component of the CM curriculum in China,²⁴ Australia²⁵ and some other countries.²⁶ It has long been considered a fundamental clinically-oriented subject for CM practice by ancient²⁷ and modern²⁸ CM professionals. The number of clinical studies relating to *Shang Han Lun* formulae is increasing.^{29,30} A number of reviews²⁹⁻³¹ have reported on the quantity of papers on *Shang Han Lun* teaching and learning in the past 50 years in mainland China but these have not evaluated the reporting quality or methodological rigour of these papers. As reporting quality may reflect the methodological quality, this review aims to systematically evaluate the reporting quality of original educational research on *Shang Han Lun*, and develop a checklist for the preparation of future CM educational research reports.

Methods

This review followed the methods for conducting systematic reviews on medical education recommended by the Best Evidence Medical Education (BEME) Collaboration.^{7,32} We extracted information on the reporting structure based on previous review papers^{13,17,33,34} and used a consensus checklist¹⁹ of educational research reporting elements to assess the reporting quality.

SEARCH STRATEGY

A total of eight electronic English databases and three major electronic Chinese databases were searched from their respective inceptions to December 2008, including PubMed, Education Resource Information Centre (ERIC), Web of Science, British Education Index, CINAHL (The Cumulative Index to Nursing and Allied Health Literature), Research and

Development Resource Base, Biomed Central, PsycINFO, China National Knowledge Infrastructure (CNKI), CQVIP Information and Wanfang Data.

Key words used in the search included the combination of *Shang Han Lun* (伤寒论), Chinese medicine classic literature (中医经典), education (教育), teaching and learning (教学), and their synonyms. Reference lists from identified original studies and review articles were screened to identify further original research studies. Hand search was conducted for the following two educational journals in Chinese: *Zhong Yi Jiao Yu* (Chinese Medicine Education, 1982–2008) and *Zhong Guo Zhong Yi Yao Xian Dai Yuan Cheng Jiao Yu* (Chinese Medicine Distance Education, 1982–2008) to identify any additional relevant papers. Conference proceedings on *Shang Han Lun* were also hand-searched. The experts in the field were contacted for any unpublished studies.

STUDY SELECTION

Any educational intervention used for *Shang Han Lun* with relevant outcome measures and results that were documented as original data was included. The participants involved in the original studies were limited to students enrolled in CM programs. Original research studies on *Shang Han Lun* as an individual course within the context of an undergraduate, postgraduate, continuing education or distance education program in English or in Chinese were considered.

The procedures for selecting studies recommend by the Cochrane Reviewer's Handbook were followed.³⁵ All titles and abstracts of identified articles were screened independently by two authors (XL and DG). Full-text articles of relevant studies were obtained for further assessment. Any discrepancy between the decisions of the two authors was resolved by a third party (AY).

DATA EXTRACTION AND ASSESSMENT OF REPORTING QUALITY

A pre-defined Excel form based on published literature was designed for data extraction.^{13,19,36} The extracted data consisted of the reporting format (abstract presence, format and components, number of references, structure of text), research reporting (research question, rationale, objectives, study design, intervention, evaluation and results), citation information (title, authors, journal, year, and search method), and research information (researchers, research domain and design, location of study, subject level and sample size, and expected outcome). The data were extracted independently by XL and DG. Any disagreement was discussed with a third party (AY).

Reporting quality assessment was conducted from the following two aspects:

1. structural quality: presence/absence of abstract, number of references, structure of text. Assessment was based on

the Uniform Requirements for Manuscripts Submitted to Biomedical Journals (URMSBJ) recommended by International Committee of Medical Journal Editors (ICMJE)³³ and previous review papers with similar purposes.^{13,17,18}

2. research reporting quality: quality of reporting research question, rationale, objectives, study design, intervention, evaluation and results. The assessment was based on a consensus checklist of educational research reporting elements.¹⁹

DATA ANALYSIS

Data were analysed by using Social Sciences Statistical Software version 15.0 for Windows (SPSS Inc, Chicago). Descriptive statistics were applied and data were presented as count and percentage.

Results

A total of 852 potential studies were found. Of these, 163 papers were identified as relevant and their full texts were obtained for further screening. Eleven studies in the Chinese language met the inclusion criteria.³⁷⁻⁴⁷ Figure 1 illustrates the study selection process.

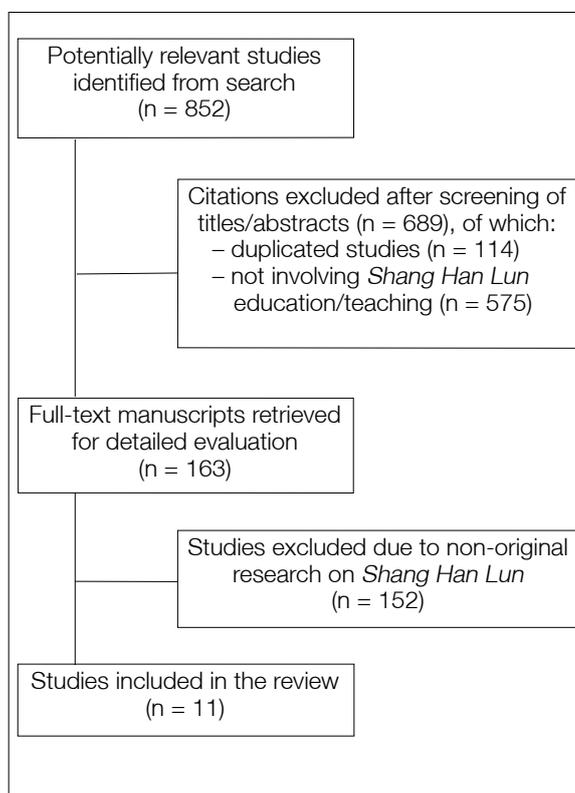


FIGURE 1 Trial flow chart of study selection process

CHARACTERISTICS OF INCLUDED STUDIES

The characteristics of included studies are summarised in Table 1 (next page).

AUTHOR CHARACTERISTICS

Seven (63.6%) papers^{39-42, 44-46} reported the identity and research experience of the first author. All were university/college teachers and senior researchers in terms of research experience. All included studies came from teaching-oriented universities/colleges in China. Six studies^{39, 40, 42, 44-46} (54.5%) were conducted in Guangdong province, two in Jiangxi province,^{37, 43} and one each in Shanghai city,⁴⁷ Qinghai province³⁸ and Liaoning province⁴¹ respectively.

RESEARCH INFORMATION

The studies focused on three domains: five (45.5%)^{40, 42, 44-46} on teaching pedagogy/methods; four (36.4%)^{37, 39, 43, 47} on educational technology and two (18.2%)^{38, 41} on educational reform.

Of the 11 included studies, six^{37, 39, 42, 44, 46, 47} were described by the authors as descriptive (what is done); four^{38, 41, 43, 45} investigated the justification for the educational interventions (is it working), and one⁴⁰ provided clarification on the intervention (how does it work) with qualitative data.

Of 11 studies, only one study⁴⁰ used a comparison group with a non-randomised controlled trial design for assessing educational interventions. Seven studies^{38, 39, 41, 43-45} were of a single-static group using post-test design while two studies^{37, 42} used a cross-sectional survey and one study⁴⁶ used a qualitative study design.

Most studies^{38-42, 45-47} focused on undergraduate students, one study involved postgraduate students only⁴⁴ and two studies^{37, 43} investigated both. Four studies^{37, 42, 46, 47} did not report the actual sample size. The sample size of the other seven studies^{38-41, 43-45} ranged between 16 and 742 with a mean of 130.

Six studies used student attitude as the outcome measure,^{37-39, 43, 46, 47} four measured both attitude and cognitive knowledge changes,^{40, 42, 44, 45} and one tested student knowledge once at the end of the study.⁴¹

REPORTING QUALITY OF INCLUDED STUDIES

STRUCTURAL QUALITY

Of the 11 included studies, six (54.5%) did not provide abstracts^{37-41, 43} and eight (72.7%) did not cite any references.^{37, 39, 40, 42-46} Of the five studies with abstracts,^{42, 44-47} none provided complete information on the following aspects: background of the study, the study objective, methods, results and conclusions.

TABLE 1 Characteristics of included studies

No.	Author	Researcher identity	Location	Study purposes	Topic	Study design
1	Diao 1998 ³⁷	Not reported	Jiangxi	Description	Educational technology	Case study cross-sectional post-test survey
2	Wang 1999 ³⁸	Not reported	Qinghai	Justification	Educational reform: multiple approaches	Single-static group post-test survey
3	Xiong 2000 ³⁹	Teacher/senior researcher	Guangzhou	Description	Educational technology	Single-static group post-test survey
4	Li 2004 ⁴⁰	Teacher/senior researcher	Guangzhou	Clarification	Teaching pedagogy	Non-randomised controlled trial
5	Gu 2005 ⁴¹	Teacher/senior researcher	Liaoning	Justification	Educational reform, standardised test	Single-static group post-test
6	Li 2005 ⁴²	Teacher/senior researcher	Guangzhou	Description	Teaching pedagogy	Case study cross-sectional survey and post-test
7	Lu 2006 ⁴³	Not reported	Jiangxi	Justification	Educational technology	Single static group post-test survey
8	Li 2008 ⁴⁴	Teacher/senior researcher	Guangzhou	Description	Teaching pedagogy	Single static group post-test mixed with qualitative data collection
9	Li 2008 ⁴⁵	Teacher/senior researcher	Guangzhou	Justification	Teaching pedagogy	Single static group post-test mixed with qualitative data collection
10	Li 2008 ⁴⁶	Teacher/senior researcher	Guangzhou	Description	Teaching pedagogy	Qualitative study
11	Yue 2008 ⁴⁷	Not reported	Shanghai	Description	Educational technology	Single-static group post test and/or survey

Seven studies implied an Introduction, Methods, Results and Discussion (IMRAD³³) structure in the text,^{37-39,41,43,44,46} but only four (36.4%) clearly stated these in the headings.^{40,42,45,47}

RESEARCH REPORTING QUALITY

Table 2 provides the summary of the research reporting quality for the included studies. Research questions were not explicitly reported in nine (81.8%) of the 11 original studies.^{37-39,41-44,46-47} None of the studies provided a study rationale. The objectives were implied in 10 (90.9%) studies;^{37-43,45-47} however, half of them seemed barely congruent with the intervention and evaluation.^{37-39,41-43}

Research questions were not stated explicitly in most of the studies, so it was not possible to determine whether they were appropriate. Ten (90.9%) did not incorporate a comparison design in their studies.^{37-39,41-47} All studies except one⁴⁰ did not

report the details of the study design. No studies reported the measures for controlling for confounding variables or provided an estimation of the sample size.

Seven studies (63.6%) did not report the educational intervention in sufficient details to allow replication^{39,40,42,44-47} and none of them described the characteristics of the learners. No studies reported the validation of the measurement instruments. Data collection methods also appeared unclear in these studies. Only one study clearly stated the statistical method and reported the *p* value for the significance in the results.⁴⁰

In ten studies (90.9%) the conclusions were not fully supported by the results and the study limitations were not discussed.^{37-39,41-47} Only one study stated how the study would contribute to the existing literature.³⁷

TABLE 1 Characteristics of included studies (continued)

No.	Subjects	Sample size	Outcome measured	Findings
1	Undergraduate enrolled in 1995, postgraduate and experts	Not reported	Attitude survey	85% survey participants reported the designed software significant for learning
2	Undergraduate (years 1, 2 and 3)	80	Attitude survey	75% reported the reforms beneficial to their study.
3	Undergraduate in 7-year program enrolled in 1994	16	Attitude survey	Satisfaction in video media (83.3%), diagram/picture (57.1%), and PowerPoint (31.1%)
4	Undergraduate enrolled in 2000 (local and international students)	40	Attitude survey and achievement test	Student achievement significantly correlates with time spent in clinical clerkship ($p < 0.01$); significant correlation between self-reported interest and time spent in clinical clerkship ($p < 0.01$); Student written feedback provides qualitative data of their opinion
5	All students at college	742	Achievement test	63% overall pass rate with differences among majors
6	Not reported	N/A.	Attitude survey and achievement test	Students rate teaching 99.5 with a pass rate of 98%
7	Undergraduate and postgraduate	62	Attitude survey	58 students (94.5%) were very satisfied
8	PhD candidate	80	Achievement by essay assessment and attitude feedback	100% pass with 26.3% highly distinguished, 66.2% distinguished; student written feedback provided qualitative data
9	Undergraduate	30	Attitude survey and achievement test	(1) 83% considered teaching beneficial to learning. Student written feedback provided qualitative data (2) average score of 85 in case analysis test
10	Undergraduate enrolled in 2003	Not reported	Open-ended feedback	Content analysis of student written feedback provided qualitative data
11	Undergraduate enrolled in 2004; experts	Not reported	Attitude survey	Participants generally thought the software helped their study

Discussion

This review located 11 original studies on *Shang Han Lun* education published in the Chinese language. The reporting quality (the structure and research reporting) of these studies was generally below the level required for scientific reporting.^{13,19,36}

More than half of the *Shang Han Lun* educational research studies (54.5%) did not provide an abstract and more than two thirds (72.7%) did not cite any references. For those with abstracts, none sufficiently covered the information required by ICMJE.³³ A structured text with informative abstract and adequate citation are generally considered important elements of academic publications in medicine.^{48,49}

As for the research reporting quality, only one study provided adequate information. Detailed appraisal of the papers generally revealed very low quality of reporting from the description of the research questions to the justification of the conclusion (Table 2). It is crucial for CM educators and researchers to develop standards to promote the overall quality of educational research in CM.

The results of this review could be used by CM educators and researchers as a reference to develop formal reporting standards which would further assist in improving research rigour and scientific validity.

This review only targeted educational research on *Shang Han Lun*, a specific classic literature course in CM. Therefore the findings from this study do not cover the overall reporting

TABLE 2 Assessment of reporting quality of included studies

Research/ Reporting	Assessment questions	Number of papers			
		Stated	Implied	Hardly reported	N/A
Question	Is study purpose easily identified?		2 ^{40,45}	9 ^{37-39,41-44,46-47}	
Rationale	Has rationale been established on basis of literature review?			11 ³⁷⁻⁴⁷	
Objectives	Are objectives clearly stated?		10 ^{37-43,45-47}	1 ⁴⁴	
	Are objectives congruent with rationale, intervention, and evaluation?		5 ^{40,44-47}	6 ^{37-39,41-43}	
Study design	Is study design appropriate for question?	1 ³⁹	2 ^{39,41}		8 ^{36,37,41-46}
	Is there a similar comparison group?			10 ^{37-39,41-47}	
	Is there selection bias in group assignment?		1 ⁴⁰		10 ^{36-38,40-46}
	Are raters blinded to group assignment?				11 ³⁶⁻⁴⁶
	Is study design described in sufficient detail to be replicated?		1 ⁴⁰		10 ^{36-38,40-46}

quality of all educational research in the CM field. Nevertheless, *Shang Han Lun* is highly valued by CM professionals and is also an essential course in CM program. The results summarised in this paper could, to some extent, reflect the reporting quality of educational research in the CM field in general.

A larger review should be implemented to gather more information on the overall reporting quality of CM educational research globally. Meanwhile, as educational research involves human subjects, ethical consideration should be another important factor for future reviews.

It is important to point out that low reporting quality of educational research does not imply poor teaching practice. The lack of guidelines for educational research reporting is probably the most important reason contributing to the poor reporting quality found in this study. Therefore, standards should be established in order to promote improved reporting quality and ensure the scientific validity of the evidence derived from educational studies. This would constitute an important step towards the development of evidence-based CM education which would be expected to result in improved educational outcomes and consequently better educated practitioners who can provide better health care to the public. The items in the Appendix are recommended to be incorporated into future CM educational research reports.^{7,13,19,21,33,36,50}

Clinical Commentary

Quality of education is an increasing priority for medical and health care professionals.⁵¹ Another concern is sustainable evidence-based practice and the improvement of patient care.⁷ For CM clinicians who are undertaking teaching responsibilities, it is time to look for evidence regarding approaches to the provision of more effective instruction for students. For CM teachers and educators, it is critical the reporting quality of educational research be improved so that it can offer high quality evidence that can be used with confidence by educators to improve the teaching quality of CM programs.

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APPENDIX Checklist of items to be included in a Chinese medicine educational research report^{7,13,19,21,33,36,50}

Item	Item No.	Description	Yes (Page No.)	No
Title/Abstract	1	How participants are treated (intervention or observation)? Is study purpose stated in the abstract?		
Authors	2	What are the positions of the researchers? Is corresponding author contact offered?		
Introduction/ Background	3	What is the scientific background of the study? Has rationale been established on basis of literature review? Are objectives/research questions clearly stated? Are ethical concerns expressed?		
Methods/ Study design	4	Is study design clearly stated? Is study design described in sufficient detail to be replicated? Is there a similar comparison group? Is there selection bias in group assignment? Are confounding variables controlled for by design or analysis? Are raters blinded to group assignment? Are long and short term effects assessed? Has power analysis been conducted to determine sample size?		
Methods/Participants	5	What is the setting and location of the study? Are there any inclusion criteria of participants? What is the sample size?		
Methods/Educational interventions	6	Are teaching methods and content described in enough detail to replicate? Are learner characteristics (e.g. level of training, profession, age) described?		



Clinical Observation of Chinese Medicine Treatment on Secondary Dysmenorrhoea Associated with Endometriosis

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ABSTRACT

Background: Secondary dysmenorrhoea associated with endometriosis affects many women and is the leading cause of work and school absenteeism, with considerable impact on quality of life. This study evaluates the possible role of Chinese medicinal herbs in relieving the menstrual pain associated with endometriosis. **Methods:** A prospective clinical observational pilot study involving twenty-five patients with endometriosis with Chinese medical diagnosis of stagnation of *qi* and blood who were recruited at the Guangdong Women's and Children's Hospital during the period of January 2004 to December 2006 to participate in a three-month Chinese medicinal herbs study. **Results:** Sixteen patients reported nil dysmenorrhoea during the treatment period. The mean CA125 at the study entry was 59.67 ± 28.32 u/ml, compared to 34.83 ± 16.34 u/ml post-treatment. The positive EMAB before the commencement of treatment was noted in 22 of 25 cases (88%), while 5 of 25 cases (20%) remained positive after treatment. **Conclusion:** Short-term administration of Chinese medicinal herbs may be effective in alleviating secondary dysmenorrhoea associated with endometriosis in *qi* and blood stagnation pattern. It may provide an alternative treatment option for the management of pelvic pain associated with endometriosis and further research in the area is required.

KEYWORDS endometriosis, Chinese medicine, Chinese medicinal herbs, dysmenorrhoea, pelvic pain, treatment.

Introduction

Endometriosis is defined by the European Society of Human Reproduction and Embryology (ESHRE) as the 'presence of endometrial like tissue outside the uterus'.¹ As ESHRE guidelines state, endometriomas 'may involve the uterosacral ligaments, vagina, bowel, bladder or ureters'.¹ Even though a large number of studies in endometriosis has been done

in western medicine, the incidence, aetiology, pathological development and optimal treatment of endometriosis remain controversial. Deligeoroglou writes that 'the cause of menstrual cramps and associated symptoms in primary dysmenorrhea is related to prostaglandin production. In secondary dysmenorrhea, there is documented pelvic pathology that causes the painful menstrual cramps, and treatment is cause related'.²

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Pain is the most common symptom associated with endometriosis and approximately 75% of symptomatic patients experience pelvic pain and/or dysmenorrhoea.^{1,3} Patients with endometriosis experience chronic pelvic pain which is worse during menstruation or at ovulation; dysmenorrhoea; subfertility; deep dyspareunia; cyclical bowel or bladder symptoms; abnormal menstrual bleeding; and chronic fatigue.^{1,3}

CA125

CA125 is the ovarian cancer antigen. As Muyldermans stated, 'in normal women, plasma concentrations of CA125 are increased slightly at ovulation and significantly during menstruation. Plasma concentrations of CA125 are markedly elevated in women with cystic ovarian endometriosis and/or deeply infiltrating endometriosis.'⁴ The clinical correlation between the value of CA125 to the diagnosis of endometriosis has been studied extensively.⁵⁻⁹ Studies have suggested that women with endometriosis often have high (greater than 35 IU/ml) serum CA125 concentrations.^{10,11}

EMAB

In addition to being a gynaecological condition, endometriosis is considered to be an autoimmune disease.¹² Several studies suggest that there is a correlation between anti-endometrial antibodies (EMAb) and endometriosis.¹³⁻³⁴ EMAB was found in the peritoneal fluid of patients with endometriosis through methods like passive hemagglutination,¹³⁻¹⁶ immunodiffusion,¹⁷⁻¹⁸ western blot,¹⁹⁻²³ immunofluorescence,²⁴⁻²⁶ immunohistochemical,²⁷⁻²⁹ and enzyme-linked immunosorbent assays.³⁰⁻³⁴

This study aimed to evaluate the possible role of Chinese medicinal herbs in relieving the menstrual pain associated with endometriosis. A prospective clinical observational pilot study was employed. Rather than only measuring physical symptoms of relief as in many other studies, quantitative items of CA125 and EMAB were also used in our study.

Methods

From January 2004 to December 2006, twenty-five cases of laparoscopic confirmed endometriosis, diagnosed with Chinese medicine syndrome differentiation of stagnation of *qi* and blood, consented to take part in this Chinese medicinal herbs study at the Department of Gynaecology, Guangdong Women's and Children's Hospital.

All patients were tested for CA125 (Abbott testing kit) and Antiendometrial Antibody (EMAb) (Mercury Interactive testing kit) before and after treatments. 5 ml of blood in a plain tube was obtained from each subject to test for CA125 by immunoassay. Sera from subjects involved were tested by cell enzyme-linked immunosorbent assay (ELISA) for EMAB. A

four-point categorical pain intensity scale (0 = none, 1 = mild, 2 = moderate, 3 = severe) and a 10 cm visual analog scale (VAS) were used to assess the pain intensity of dysmenorrhoea reported before and during treatment periods. Patients were asked to complete the pain intensity scale and VAS at the follow-up visits. Clinic visits were scheduled at screening, once a week for the duration of the three-month treatment, and once a month during the three-month follow-up period. Adverse events were recorded throughout the study.

Inclusion and Exclusion Criteria

To be eligible for the study, patients were required to have a history of regular 28-day menstruation cycle (± 7 days). In addition, patients also needed to have at least four clinical presentations of premenstrual abdominal discomfort, abdominal bloating sensation, intermittent pelvic pain, dysmenorrhoea, dyspareunia, menstrual bleed with clots, or breast tenderness. In order to fulfil the Chinese medicine diagnosis of stagnation of *qi* and blood, potential subjects were required to have purplish tongue with white coating and string taut pulse on palpation. Patients recruited must have been otherwise healthy, with a negative serum pregnancy test at the time of enrolment. They were also required to use a barrier contraceptive method during the study period and should not have used any oral contraception in the six months before study entry or during the study.

Patients were excluded from the study if they had a known history of diabetes mellitus, hypertension, cardiovascular disease or systemic disease; were using a hormonal implant in the six months prior to screening or an injectable or intrauterine contraceptive system within three months of screening and during the study; had abnormal results noted from full blood count, kidney function and liver function tests. In order to avoid confounding results, recruited subjects were asked to refrain from taking any form of analgesia during the treatment period.

Treatment

Patients meeting the eligibility criteria received *Shengdihuang* (*Radix Rehmanniae*) 12 g, *Danggui* (*Radix Angelicae Sinensis*) 12 g, *Chishao* (*Radix Paeoniae Rubrae*) 15 g, *Chuanxiong* (*Radix Ligustici Wallichii*) 10 g, *Taoren* (*Semen Pruni Persicae*) 10 g, *Honghua* (*Flos Carthami*) 10 g, *Chaihu* (*Radix Bupleuri*) 12 g, *Zhike* (*Fructus Citri Aurantii*) 12 g, *Danshen* (*Radix Salviae Miltiorrhizae*) 30 g, and *Huangqi* (*Radix Astragali*) 10 g, one week after the diagnostic laparoscopy for ongoing pelvic pain, dysmenorrhoea and dyspareunia. For patients who were menstruating during the treatment period, *Pubuang* (*Pollen Typhae*) 10 g and *Wulingzhi* (*Excrementum Troglodyteri seu Pteromi*) 15 g were added to the formula. All patients were

asked to take the herb concoction twice a day for three months and were followed up for improvements on a monthly basis for three months after the cessation of treatment. All herbs were cooked for 30 minutes duration after boiling and the cooking procedures were uniformly carried out at the hospital central pharmacy. Patients were given individual packages of herb concoction.

Results

All 25 patients who completed the screening received treatments. Paired t-tests were used to assess the significance for pain-related outcome measures, CA125 and EMAB. The mean age of patients was 34.5 years old. According to the revised American Society of Reproductive Medicine (r-ASRM) classification, there were 9 cases in Stage I-II, 12 cases in Stage III and 9 cases in Stage IV. Sixteen out of 25 patients (64%) reported no experience of dysmenorrhoea during the treatment period. The results were consistent in the four-point categorical pain intensity scale and the 100 mm visual analog scale (VAS) (Tables 1 and 2). The mean VAS before the treatment was 7.04 ± 1.98 while reduced to 1.68 ± 2.88 after the conclusion of treatment ($p < 0.05$). As illustrated in Table 3, the mean CA125 level before treatment was 59.67 ± 28.32 u/ml, compared with 34.83 ± 16.34 u/ml post-treatment

($p < 0.05$). The positive EMAB before the commencement of treatment was noted in 22 cases (88%) while 5 cases (20%) ($p < 0.05$) remained positive after the treatment.

There were no reported adverse events related to the intake of Chinese medicines throughout the study and follow-up period.

Discussion

The prevailing western medical symptomatic treatment for endometriosis is expectant therapy.³ However, it is considered ineffective, as the recurrence rate is up to 70%.⁴ Even though surgical therapy can relieve pelvic pain,⁵ the recurrence rate is still 30–40% four weeks after the surgery was performed.⁶ Given the existing limitations and high recurrence rate in western medical treatment on endometriosis, it is important to seek alternative therapies which may have a role in alleviating the symptoms for women with endometriosis.

As mentioned, women with endometriosis often have elevated (greater than 35 IU/ml) level of serum CA125.^{7,8} In a study that assessed 685 women with endometriosis, the CA125 level was noted at 19, 40, 77, and 182 IU/ml for Stage I, II, III and IV disease respectively.⁷ Even though serum CA125 is not a

	No Pain (PI = 0)	Mild pain (PI = 1)	Moderate pain (PI = 2)	Severe pain (PI = 3)
Before treatment	0	8	10	7
At the conclusion of treatment	16	4	2	3

	0	1-2	3-4	5-6	7-8	9-10	Total
Before treatment	0	0	4	4	10	7	25
At the conclusion of treatment	16	3	1	2	2	1	25

	CA125 (IU/ml)	No. of EMAB* positive cases
Before treatment	0	8
At the conclusion of treatment	16	4

* EMAB = Endometrial Antibody

sensitive indicator for endometriosis, it is shown to correlate in women with endometriosis Stage III and IV disease.⁸ In our study, both EMAB and CA125 concentrations were reduced at the conclusion of treatment period. It is consistent with our initial hypothesis that Chinese herbal therapy may have a role in offering alternative care to women with endometriosis-related dysmenorrhoea.

One of the major issues among all types of clinical care is the compliance of treatment. We aimed to reduce the potential compliance and drop-out problems in this study by asking recruited patients to be reviewed once a week in the clinic.

The Liver, Chong mai and Ren mai govern the physiology of menstruation. The smooth running of blood and *qi* are responsible for normal menstruation to occur. This also relies on the free flow of liver *qi* and *qi* of Chong mai. Endometriosis in Chinese medicine may be related to stagnation of *qi* and blood as in painful menstruation. The formula used in this study consists of various herbal components. *Danggui* (*Radix Angelicae Sinensis*), *Chuanxiong* (*Radix Ligustici Wallichii*) and *Chishao* (*Radix Paeoniae Rubrae*) were used to nourish and invigorate the blood. *Danggui* is a commonly known Chinese herb that has traditionally been used to treat dysmenorrhea, irregular menstruation, and as a supportive herb for menopausal complaints.^{3,5} *Danggui* is also believed to enhance the production of endogenous oestrogen.³⁵ Further study is needed to investigate the synergistic mechanism of action of *Danggui* in endometriosis treatment. For patients who were menstruating during the treatment period, *Puhuang* (*Pollen Typhae*) 10 g and *Wulingzhi* (*Excrementum Trogopteri seu Pteromi*) 15 g were added to the formula. Both *Puhuang* and *Wulingzhi* enter the Liver meridian and disperse the blood stasis associated with menstruation.

Flower et al.³⁶ included two randomised clinical trials (altogether 158 subjects) in their Cochrane systematic review of Chinese herbal medicine for endometriosis. So far there has been no placebo-controlled clinical trial for evaluating the safety and effectiveness of Chinese herbal medicine in endometriosis treatment. Furthermore, as Flower et al.³⁶ state in their review, 'the two trials included in this review are of poor methodological quality so these findings must be interpreted cautiously.' Despite the fact that there were no statistical differences between Chinese herbal medicine and comparison groups in terms of symptom relief and pregnancy rate, both included studies revealed 100% symptom improvement as reported by participants. Flower et al.³⁶ state, 'Post-surgical administration of CHM may have comparable benefits to gestrinone but with fewer side effects. Oral CHM may have a better overall treatment effect than danazol.' In contrast to other Chinese herbal medicine studies on endometriosis, our study also attempted to incorporate quantitative measures

(CA125 and EMAB) in outcome assessments, in addition to the routine physical symptoms measurement. These measurement items will hopefully provide for objective assessment of the outcomes.

Even though we have obtained encouraging result from this pilot study, there are many areas for improvements regarding study design for future investigations. We consider the number of recruited subject to be fairly small in this study. Although it may be enough for a pilot study, a larger sample size in a blinded controlled study would be needed to evaluate the efficacy of Chinese herbs in relieving secondary dysmenorrhoea in endometriosis. In addition, a properly designed randomised controlled study in this area is certainly in need, as suggested by Flower et al. in their Cochrane review. Even though we have used CA125 and EMAB as quantitative outcome measures in our study, quality of life measurements should also be incorporated into any future study to assess whether Chinese herbal medicine can play a role in that aspect for women with endometriosis.

Conclusion

Short-term administration of Chinese medicinal herbs may be effective in alleviating secondary dysmenorrhoea associated with endometriosis in *qi* and blood stagnation pattern. It may provide an alternative treatment option for the management of pelvic pain associated with endometriosis, but further research into the area is needed. In order to evaluate the role of Chinese herbal medicine treatment as an adjuvant therapy in existing western medical treatment, properly designed placebo-controlled randomised integrative medicine trials are needed.

Clinical Commentary

Short-term administration of Chinese medicinal herbs may be effective in alleviating secondary dysmenorrhoea associated with endometriosis in *qi* and blood stagnation pattern. In addition to clinical assessment of physical symptoms improvement, quantitative measurement items (e.g., EMAB) should be taken into consideration.

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Treatment of Male Infertility due to Obstructive Azoospermia with Acupuncture and Moxibustion: A Case Report

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ABSTRACT

Infertility affects up to one in five couples and male infertility is a contributing factor in half of these cases. Obstructive azoospermia is an intractable form of male infertility that is difficult to treat, whether by biomedicine or traditional Chinese medicine (TCM). In recent years, assisted reproduction technology (ART) has improved the reproductive potential for patients with obstructive azoospermia, but the specific procedure remains controversial and involves a number of inherent risks. This case report documents a short course of acupuncture treatments for a 33-year-old male presenting with a ten-year history of obstructive azoospermia. The primary intervention of acupuncture utilised conventional treatment protocols, in combination with the innovative application of an eight extraordinary vessel point selection. After just three treatments, the patient and his wife conceived naturally, without further medical assistance. This outcome suggests that TCM and acupuncture in particular may be more effective treatment for azoospermia than previously thought.

KEYWORDS andrology, male infertility, obstructive azoospermia, acupuncture, moxibustion.

Introduction

Infertility affects up to 20 percent of couples worldwide,¹ and it is estimated that over 40 percent of all infertility results from male infertility.² The causes of male infertility are diverse and include environmental, congenital and psychological factors.³ Diagnostic classification is complex because individual abnormality in sperm quality, quantity or motility may constitute an infertile state.³ Obstructive azoospermia is a severe form of male infertility characterised by the complete absence of sperm in the seminal fluid, caused by blockage in the spermatic duct.⁴ Fifteen percent of all male infertility is caused by obstructive lesions in the male genital tract,⁵ which may result from genitourinary infections, iatrogenic injury from surgery, vasectomy and congenital anomalies.

AN ORIENTAL PERSPECTIVE

The history of andrology in TCM can be traced to the Mawangdui scrolls, circa 475–221 BCE, and the *Huang Di Nei Jing*, circa 150 BCE–24 CE.⁶ The treatment of male infertility with acupuncture was first documented in the Sui Dynasty text, *General Treatise on the Aetiology and Symptomatology of Disease (Zhu Bing Yuan Hou Lun)* by Chao Yuan-fang in 610 CE.⁷ Clinical research into the role of acupuncture for male infertility has produced largely positive outcomes and according to a *Journal of Andrology* review, 'Acupuncture may represent an important therapeutic modality for male factor infertility.'⁸ However, azoospermia is considered difficult to treat with TCM,⁹ and the handful of acupuncture trials that have included subjects with azoospermia have produced mixed results. Zhiyuan, for instance, reported acupuncture to

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be wholly ineffective for azoospermia,¹⁰ while Siterman et al. found that patients with post-infection azoospermia responded better to acupuncture than other male infertility types.¹¹

BIOMEDICAL TREATMENT

The primary biomedical treatment for obstructive azoospermia is epididymal or testicular sperm aspiration, followed by intracytoplasmic sperm injection (ICSI), and uterine injection. This is a relatively new procedure that has improved pregnancy rates among androgenic infertile couples, and a recent review of the first decade of its use found that up to one in five interventions resulted in a full-term birth.¹² Despite these improvements, the procedure is considered difficult, invasive, expensive, and involves significant health risks, including the increased risk of miscarriage, embryopathy and the transmission of genetic defects.^{13,14} Another shortcoming of the ICSI surgical model is an inability to correct the underlying structural problems that cause obstructive azoospermia, thereby necessitating repeated surgical interventions for each attempted fertilisation.

Case History

A 33-year-old male patient presented to the acupuncture clinic with the chief complaint of primary infertility. The patient and his wife had not conceived by natural means throughout their ten-year marriage. After three years without pregnancy, medical assistance was sought to identify the cause of the infertility. Specialists examined the couple and determined that the wife was in good reproductive health, but the husband had a nil sperm count. A semen sample was aspirated from the patient's testes and the presence of viable sperm with normal spermatogenesis indicated the presence of obstructive azoospermia. Further investigations revealed a blockage located in the epididymis, but without a history of genitourinary infection, congenital infertility, or iatrogenic surgery, the specific aetiology of the obstruction was not identified.

Further sperm samples were aspirated from the patient and sent to a lab for cryopreservation, apropos of use for ICSI treatment. Over the next 18 months, the sampled sperm was utilised for a succession of ICSI procedures. The first three interventions proved unsuccessful, but after the fourth attempt, the wife conceived and gave birth to a healthy son. Eighteen months after the child was born, the couple desired another child, and the entire process was repeated. Further sperm samples were extracted and four separate interventions performed over a twelve-month period culminated in the birth of another son.

Despite the eventual success of the interventions, the couple were uncomfortable with the ART procedures. Each sperm aspiration was followed by a painful recovery period, and both husband and wife were distressed by the invasive nature of the surgery. The patient was informed that repeated surgery

increased associated scarring and the risk of infection, and each round was marked by the reduced potential for success.

Given the couple's reluctance to continue with the western medical approach, the visit to the acupuncture clinic represented a last resort before again taking up the option of surgery. The patient was softly spoken with a pale complexion and a sensitivity to the cold, particularly in the extremities. He suffered episodic lower back pain that occurred approximately fortnightly and ongoing stiffness in the knees that was not associated with a specific injury. Back pain was worse at the end of the day and typically centred at the juncture of the L5/S1 vertebrae, occasionally radiating to the iliosacral joints. Episodes of back pain were moderate, and on a scale of one to ten, with one representing mild pain and ten excruciating pain. The patient reported pain measuring four to five out of ten. Palpation of the hips and lumbus revealed cool skin.

The patient frequently passed copious amounts of clear urine and experienced mild swelling of the feet and ankles. Signs of distension were exhibited around the midsection of the abdomen and palpation revealed cool skin and tenderness on the midline below the umbilicus, a location correlating with the point CV4 *Guanyuan*. The patient moved his bowels once per day and reported no digestive problems. His work as a construction foreman involved minimal physical work and, by his own admission, he performed insufficient exercise. He acknowledged that he had erratic eating habits, regularly missed breakfast, and overate at night. He enjoyed eight hours of uninterrupted sleep per night and generally awoke feeling refreshed. He didn't drink, smoke, or take any medication, except for paracetamol for mild headaches which occurred, on average, bi-monthly.

The patient reported a low libido, but no erectile dysfunction. The couple engaged in intercourse no more than once per fortnight, a frequency that had altered little throughout the course of the marriage. Such encounters produced a thin and watery ejaculate with a post-coital feeling of urgency emanating from the obstruction in the epididymis. The patient had suffered no serious or chronic illness throughout his life. He was the youngest child in a family of seven and his wife hailed from a similarly large family. The patient reported that his mother was in her late forties when he was conceived, and his father in his late fifties. He described himself as generally happy, but admitted to a lingering sense of inadequacy due to being infertile. He reported a close and loving relationship with his wife and children, but the couple desired more children.

During the first consultation the patient reported that his wife was just finishing her menstrual period. The pulse was deep, slow and weak, particularly weak in both Kidney pulse positions. The tongue was pale with a thin white coat.

TCM Differential Diagnosis

According to TCM theory, the regulation of reproduction and sexuality in both sexes is a function of the Kidney.¹⁵ The Kidney is the storehouse of essence and opens into the lower orifices, including the spermatic duct.¹⁶ As such, Kidney deficiency syndromes – yin, yang and jing – constitute the most common pathologies for male sexual disorders.¹⁷ The patient's lower back pain, stiff knees, and deep and weak Kidney pulse suggested the presence of Kidney deficiency. As the lumbar region is the 'palace of the Kidney', Kidney deficiency gives rise to lower back pain and stiffness in the knees.¹⁶ The presence of cold symptoms – cold extremities, cold skin of the abdomen and lower back and the frequent passage of copious amounts of clear urine – suggested a deficiency of Kidney yang. When Kidney yang is deficient, the fire in the gate of vitality fails to warm jing essence, which impairs reproductive function giving rise to low libido, thin, watery ejaculation, impotence and infertility.¹⁸ Another characteristic of Kidney yang deficiency is a failure to control water metabolism, which causes signs of fluid accumulation, such as oedematous swelling in the lower extremities, or signs of fluid containment, such as copious voidings of clear urine.¹⁸

In TCM, ductal blockage is described like any tissue obstruction – as blood stagnation.¹⁷ The fixed nature and prolonged chronicity of the patient's spermatic obstruction supported this diagnosis. That blood stagnation can coexist or even arise from Kidney yang deficiency has been identified in a number of male reproductive disorders.^{19,20} Long states, "chronic kidney disease always involves blood stasis".²¹ The process by which Kidney yang deficiency can give rise to stasis of blood relates to the Kidney's effect on *qi* transformation and the movement of fluids in the lower jiao. The Qing dynasty author Wang Qingren stated that sperm flow depends on Kidney yang's function of *qi* transformation; if yang is insufficient, then *qi* cannot be transformed.²² Weak Kidney yang also disrupts the regulation of urination and the separation of clear and turbid fluids, leading to fluid accumulation. The sum of these effects is the stagnation of fluids and *qi*, from which blood stagnation may easily arise.²¹

The primary causes of Kidney yang deficiency are constitutional yang deficiency, loss of essence due to sexual excess, old age, and chronic illness.¹⁶ In the absence of the latter aetiologies, the patient's yang deficiency was regarded as a congenital pattern, inherited from parents who were middle aged at the time of his conception. This is a typical characteristic of Kidney jing deficiency which, according to Lytleton, presents alongside the majority of male infertility cases caused by Kidney yang deficiency.¹⁷

Reproductive disorders are also associated with disharmony of the Conception and Penetrating vessels, and aspects of the

patient's presentation suggested the presence of this pathology. The Chong mai is known as the sea of blood and is considered appropriate to treat when the proper distribution of blood is obstructed in the lower jiao. In the *Classic of Difficulties*, the Chong mai is associated with counterflow of *qi*, which causes a sense of urgency or rushing.²³ The rushing sensation described in this early text resembled the patient's description of post-coital urgency arising from the blockage in the spermatic duct. The presence of this sensation strongly suggested an obstruction to the normal flow of *qi* and blood in the Chong mai. Mei says, 'whenever there is this feeling, there is always a pathological imbalance of the Chong Mai, independently from which zang or fu may be affected'.²⁴

In addition to influencing reproductive health, both Chong and Ren mai are intimately connected with the function of the Kidney. Kuang states, 'Kidney Yang deficiency leads to deficiency of original *qi* and debility of the Chong and Ren Mai'.²⁵ Wang Shu-he explains that counterflow may also originate from Kidney deficiency, 'If the kidney *qi* is deficient, this deficiency damages the chong mai. The chong mai has rebellious *qi*'.²⁶ The Chong mai originates in the gate of vitality and emerges at CV 1 *Huiyin*, the starting point of the Ren mai²⁷ and the location of the blockage in the patient's epididymis. Thus, with the presentation of Kidney deficiency causing blood stagnation, coupled with the sensation of counterflow at CV 1 *Huiyin* (the meeting point of the Chong and Ren); a diagnosis of Blood stagnation obstructing the Chong and Ren Mai was made.

TCM Diagnosis

Kidney yang and jing deficiency, Blood stagnation obstructing the Chong and Ren mai.

TCM Treatment Principle

Warm and nourish Kidney yang and Kidney jing. Invigorate the circulation of *qi* and blood in the lower *jiao*, dispel blood stagnation in the Chong and Ren mai.

Treatment

Acupuncture for Kidney yang and jing deficiency:

KI 3 *Taixi* (tonify), CV 4 *Guanyuan* (needle head moxa), ST 36 *Zusanli* (needle head moxa), BL 23 *Shenshu* (needle head moxa), GV 4 *Mingmen* (rice grain moxa).

Acupuncture for blood stasis obstructing the Chong and Ren mai:

Chong mai pairing – SP 4 *Gongsun* & PC 6 *Neiguan* (even method), CV 4 *Guanyuan* (needle head moxa), SP 6 *Sanyinjiao* (reduce).

Treatment Rationale

KI 3 *Taixi*, CV 4 *Guanyuan* (moxa), ST 36 *Zusanli*, BL 23 *Shenshu* and GV 4 *Mingmen* are commonly selected points for the treatment of Kidney yang and jing deficiency, and this combination is specifically recommended for Kidney deficiency male infertility.^{10,17} SP 6 *Sanyinjiao* is a powerful point to use in reproductive disorders because it has the capacity to tonify the Kidney, remove channel obstruction, promote Blood circulation and harmonise the lower jiao.²⁷ CV 4 *Guanyuan* has a similar versatility and, according Zhiyuan, not only supplements the Kidney and invigorates yang (with moxa), but also courses the flow of the *qi* and blood in the Chong and Ren mai. SP 6 *Sanyinjiao* and CV 4 *Guanyuan* are combined to reset blood circulation.²³

According to Wang Ju-Yi, in cases of chronic blockage it is often appropriate to choose eight extraordinary vessel combinations.²³ SP 4 *Gongsun* and PC 6 *Neiguan* are the master and coupled points of the Chong mai, and are combined to impel the strong movement of *qi* and blood in the central core of the pelvis and genitals.²⁷ In the *Glorious Anthology of Acupuncture and Moxibustion (Zhen Jiu Ju Ying)*, Gao Wu refers to SP4 *Gongsun* as one of 'the eight therapeutic methods', which he prescribes for the treatment of *qi* and blood stasis below the umbilicus.²⁷ The Penetrating vessel is also responsible for strengthening the flow of *qi* between the Conception and Governing vessels at the meeting point CV 1 *Huiyin*.²⁶ For this reason SP 4 *Gongsun* and PC 6 *Neiguan* were selected to promote the flow of *qi* and blood to the testes and epididymis.

Methodology

The intervention consisted of a course of five acupuncture treatments over a period of seven weeks. Hwato brand stainless steel needles were used: 0.3 mm diameter by 40 mm length for points with moxa, and 0.25 mm in diameter and 30 mm length for all other points. SP 4 *Gongsun* and PC 6 *Neiguan* were needled bilaterally on their own for ten minutes at the beginning of the treatment. All other points were needled bilaterally with needles retained for an average of 15 minutes. Needle insertion for each point was performed to a depth recommended by TCM textbooks.^{16,27} Points were stimulated until *deqi* was elicited, and for specific points, CV 4 *Guanyuan* and SP6 *Sanyinjiao*, special attention was given to directing *deqi* sensation towards the region of the patient's blockage at CV 1 *Huiyin*. The same point prescription was used throughout the treatment course.

PATIENT ADVICE

In order to strengthen the patient's vitality and conserve the couple's reproductive energy for the fertile period that follows ovulation, the patient was advised to abstain from coitus until

the week of ovulation. The patient was encouraged to eat breakfast and take up brisk walking for 45 minutes, three times per week, to support general health. He was also given a simple visualisation technique to focus his attention in the region of the lower *Dan tien* (below the umbilicus) while breathing deeply, whenever the opportunity availed itself. This Qigong technique was prescribed to increase the flow of *qi* and blood to the lower *jiao*, based on the rationale that 'where attention goes, *qi* follows'.

Results

After the first treatment the patient reported a sense of vitality and relaxation that had not been experienced in many years. This engendered confidence in the acupuncture treatment and gave the patient impetus to follow the advice of eating breakfast and initiating a regular exercise regime. After two treatments the colour had improved in the patient's complexion and his pulse was noticeably stronger, particularly in the Kidney positions. After the third treatment, the patient was happy to report an unprecedented sense of vigour and desire in his sexual relations with his wife. He also noted the absence of any sense of post-coital urgency emanating from the blockage in the epididymis, and no back pain had been experienced since starting the treatments. The patient attended his fifth treatment and was overjoyed to report that his wife had conceived some three to four weeks previously. This timeframe suggested that conception had occurred in the week following the third acupuncture treatment.

Discussion

In contemporary TCM literature, Chong mai treatments are widely indicated for gynaecological disorders, yet largely overlooked in male reproduction. Lyttleton puts the view that the Chong mai has less involvement in the pathophysiology of male infertility than female,¹⁷ and this position seems to be widely accepted in TCM. There is, however, an historical basis for arguing that the Chong mai plays a central role in male reproduction, and male fertility in particular. In Chapter 65 of the *Ling Shu*, Qi Bo provides us with the earliest pathophysiological description of male infertility, in which the disruption of the Chong mai is the predominant pattern: 'In eunuchs, the Chong Mai is damaged with the removal of their sexual organs,' and, '[if] their insufficiency is inherited, their Chong and Ren channels are not flourishing, their sexual organs do not function'.²⁸ This passage highlights the intimate relationship between the Chong mai and male fertility, and provides an explanation for why a treatment that targets the Penetrating vessel may work so effectively.

At the time of formulating this treatment, the use of Chong mai points to clear a blockage in the spermatic duct seemed

an appropriate reponse to the presenting symptoms. Further research has confirmed that a Chong mai treatment is applicable when there is counterflow in the lower jiao with a background of Kidney deficiency. The eight extraordinary vessels represent an underemphasised principle in classical physiology and, despite having origins in the earliest TCM texts, it was not until the Ming dynasty that our current understanding of these vessels began.²³ That a Chong mai treatment may be considered unconventional for male infertility reflects the fact that the evolution of eight extraordinary vessel theory continues in the modern era.

The focus given to both the underlying cause of the condition, that is, Kidney yang deficiency as well as the overt symptoms, and blood stagnation which may be another important contributor to the outcome of this intervention. The use of points to warm and tonify the Kidney, in conjunction with those to promote *qi* and blood circulation in the Chong and Ren, worked synergistically to resolve a longstanding condition in a remarkably short time. Classical theory suggests that when a condition is chronic, treat the root (*ben*) and, when acute, treat the branch (*biao*). However, male infertility treatments that solely treat the root deficiency, while overlooking the expression of excess in the branch, seldom prove effective. Clavey states that many practitioners approach the treatment of male infertility as a matter of Kidney deficiency alone, but a preferable strategy is to resolve the symptom of excess and then tonify, if necessary.⁹ This approach is confirmed by Guo et al., who found that tonifying the Kidney while improving blood circulation in impotent males, was markedly superior to tonifying the Kidney alone.²⁰ In this case study, the treatment of Kidney deficiency and blood stagnation was carried out concurrently because of the understanding that blood stagnation can be difficult to remove, tempered with the presentation of a patient with significant signs of deficiency. While this may appear to entail conflicting treatment goals, the results indicate that each outcome was achieved without encumbering the other.

In conclusion, this case study demonstrates the application of TCM theory to a clinically and socially relevant problem and reinforces the notion that biomedically defined conditions can be treated effectively with a TCM problem solving approach. Given that azoospermia is considered difficult to treat, the strategy of moving *qi* and blood in the Chong vessel, in order to clear an obstruction of the epididymis, may provide an innovative alternative to treating this condition. This case study does not pretend to be the first to use Chong mai points to treat male infertility, but it does demonstrate that using such points may be effective. That a man who had been unable to produce sperm for ten years was able to conceive in less than a month – after only three acupuncture treatments – attests to the powerful effect that acupuncture may have on male

Clinical Commentary

In recent years acupuncture has developed a reputation for improving pregnancy rates among infertile females, but less evidence exists for the effect of acupuncture on male infertility. This case study examines a short course of acupuncture treatments for a male with a ten year history of obstructive azoospermia; a common yet intractable form of male infertility. Biomedical treatment for obstructive azoospermia involves invasive surgery for both the male and his partner and offers limited potential for success. Yet after only an handful of acupuncture treatments the patient and his wife were able to conceive naturally. This result was achieved using a simple acupuncture protocol that may be employed by any TCM practitioner.

reproductive health. In light of the significant reservations the medical community has in regard to the safety of the conventional biomedical treatment for obstructive azoospermia, acupuncture may offer a safe and cost effective alternative to invasive surgery. While it is impossible to read too much into the treatment of just one subject, the swift resolution of this patient's longstanding condition, suggests that further research into the effect of acupuncture on male infertility is warranted.

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Interview with Xuejian Liu, Chinese medicine practitioner

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Introduction

Dr Xuejian Liu worked as a barefoot doctor for five years in the countryside surrounding Beijing, China before he entered university. He commenced a four year course in Chinese medicine (herbal medicine and acupuncture). He studied western medicine at Capital University of Medicine, Beijing, and Chinese medicine at Beijing Hospital of Chinese Medicine. In the early 1970s the hospital served as a magnet for some of the best clinicians in the “older” generation, such as Prof. Wang Juyi, He Puren, Yu Shuzhuang on acupuncture, Prof. Zhao Bingnan on dermatology, Prof. Liu Fengwu on gynecology and Prof. Guan Youpo on internal medicine. Dr. Liu had his Chinese medicine training with these well known and experienced practitioners.

After graduation in March 1977 and until 1988 he worked at the Beijing Hospital of Chinese Medicine as a clinician and a lecturer. In 1988 he moved to the China Academy of Chinese Medicine where he was promoted to assistant professor in 1995. Between 1990 – 1993 he was invited to work at the European Centre for Peace and Development (ECPD), established by the United Nations, located in Belgrade, Yugoslavia which included lecture tour in Greece and Israel. Since 1997, he started lecturing at RMIT University, Melbourne Australia whilst practicing as a clinician in private clinic. He now practices in Wodonga, Victoria.

His specialties include internal medicine such as respiratory problems, digestive problems, immune system problems, side effects associated with post chemo or radiation problems and gynecology disorders such as infertility, menopause and post menopause syndromes.

Dr Liu's 32 years experience in Chinese medicine education and clinical practice in various countries might help Australian practitioners, particularly young clinicians to improve their clinical skills and broaden their knowledge.

We have put two sets of questions to Dr. Liu with one set being general questions and the other focusing on acupuncture practice.

The Questions

What made you choose to study acupuncture?

After graduation I was sent to work at the Beijing Hospital of Chinese Medicine. At the time, there were limited numbers of trained “young” doctors specializing in acupuncture who were capable of taking on the tasks from the ‘older’ experts. The president of the hospital decided to select the best graduate for this special position, I was fortunate enough to be selected.

In your opinion, what is the biggest achievement in Chinese Medicine in the last 50 years?

Acupuncture anesthesia (representative scholar: Prof. Jisheng Han) and the confirmation of the channel transmission (representative scholar: Prof. Zongxiang Zhu).

Professor Zhu's life research has included a variety of experiments conducted on both animal and human subjects that show increased light, sound, and electrical conductivity along the channel pathways. Unlike the Western researchers whose experiments emphasize nerve pathways or the unique anatomical/physiological nature of specific acupuncture points, Professor Zhu focused on looking at the unique properties of the tissues. He found that there is a measurable difference between conductivity in the tissues along the channel pathways compared with those tissues a few centimeters away which aren't associated with any acupuncture channels.

With the rapid developments in Western medicine, what is the role of Chinese medicine in a modern society? And what types of clinical condition is Chinese medicine more effective?

Modern Western Medicine has had dramatic achievements in Emergency Medicine, and various surgical specialties. However, there are still many questions to be addressed in Internal Medicine and Psychiatry. In most cases, the exact etiology of some diseases has not been fully or partially understood. Depression is a very good example.

As a product of millions of year's evolution, the human body

is extremely complex, with complicated and sophisticated adjustment mechanisms. Due to the wide-spread connections within cells, tissues, organs, and systems, the original biomedical model might not be the only or best answer of many human diseases.

Chinese medicine is a model that bypasses some of the microscopic complexity of human bodies, and treats the disease by enhancing native defensive mechanisms. The result in many diseases is very encouraging.

Western medicine is the main stream medicine in Australia, but it still cannot cure or effectively treat a lot of diseases such as arthritis, depression, menopause and infectious diseases, which can be managed by Chinese medicine very well.

Many types of clinical conditions can be treated by Chinese medicine effectively such as : pain, respiratory problems, digestive disorders, endocrine problems, nervous problems, and cases in menopause which are not responding to HRT or prohibited use of HRT due to risk of cancer.

Please list the diseases/conditions giving you the strongest impression that Chinese medicine is effective form of treatment. Can you give an example?

Chinese Medicine is very effective in the treatment of Chronic fatigue, menopause and depression.

I have a patient with severe depression for 5 years. He came to my practice on 10 August 2007. He had a lot of signs and symptoms caused by depression i.e. anxiety, moody, depressive, anger, abdominal cramps, diarrhea etc.

He had decided to stop taking antidepressants prescribed by his general practitioner because he couldn't tolerate side effects caused by tablets and also under the medication his conditions were not improving. I used classic acupuncture point prescription and Jing fang to treat him. After the first treatment, the patient's conditions started improving: diarrhea stopped, abdominal cramps disappeared, more happier, more energy, less emotional, less moody ... After 10 visits, although he felt tired sometimes, but nearly all his adverse symptoms disappeared. His comment was: "Chinese medicine has given me back my natural feelings." I used similar or modified methods mentioned above to treat many patients with depression, the therapeutic results are very satisfying. I found, acupuncture

and some classic herbal formulae such as Wu Mei Wan, Jiao Mei Tang, Wen Dan Tang, Chai Hu Jia Longgu Muli Tang are natural "antidepressants", which could treat patients with depression very effectively, without or with very little side

effects.

What are the most urgent questions we need to address in Chinese Medicine?

The outcome measures need to be addressed. Chinese medicine focuses on subjective feeling reported by patients whereas the western medicine is more objective, relying on laboratory findings. It is more important that after treatment the patients feel more relaxed, happier, calm, and clear headed with reduced pain. Many often comment that they feel 'normal' again and that the quality of life has improved for them. We may not need to rely on laboratory tests or findings to "prove" that the patient is or is not getting better (evidence based).

What are the main mistakes that Chinese medicine doctors are making?

In my opinion there are three main mistakes

1. Many practitioners are constrained by western diagnosis, resulting in treating patients from a western medical point of view with too much emphasis on laboratory results/ findings.
2. Some young practitioners underestimate learning from experienced teachers/mentors,
3. Some practitioners underestimate learning from the Classics. They trust modern research, newly published books rather than the Classics.

Please give young doctors some advice on how to study Acupuncture and Chinese medicine. For instance, if they have questions, where and how should they find the answers?

You must make notes immediately when you have difficult cases, e.g. after a few treatments, a patient has no improvements or a patient improved in the beginning, but no improvements later on.

Then you must find answers from books, teachers or your own previous experience. If you wish to be a good practitioner, you should have at least 1,000 Chinese medicine books on acupuncture and herbal medicine in English or Chinese

What types of books one should have? Please list the top five books that everyone should read.

Both classic and experiences from current practitioners should be read. Here are the top five books everyone should read and keep a copy.

1. Miraculous Pivot 《灵枢经》
2. AB Classic of Acupuncture and Moxibustion - Huang Fumi <针灸甲乙经>
3. Acupuncture Oades: Ode to the One Hundred Symptoms 《百症赋》, Ode to the Jade Dragon 《玉龙赋》, Ode to the Importance of Penetrating the Dark Mystery 《通玄指要赋》, Ode to the Streamer out of the Dark 《标幽赋》, Ode to the Magnanimity of the Mat 《席弘赋》.
4. Applied Channel Theory In Chinese Medicine - Wang Ju-Yi's Lectures on Channel Therapeutics. By Wang Ju-Yi and Jason D. Robertson,

I highly recommended this book!!! Prof Wang Ju-Yi graduated from Beijing University of Chinese Medicine in 1962, he worked as a doctor in acupuncture at Beijing Hospital of Chinese Medicine for 22 years, as Prof. and Chief editor of China Journal of Acupuncture and Moxibustion at China Academy of Traditional Chinese Medicine for 12 years, served as president of one of Beijing's largest hospitals for 2 years. I worked as doctor in acupuncture under his supervision at Beijing Hospital of Chinese Medicine for 3 years and at China Academy of Traditional Chinese medicine for another 5 years.

Applied Channel Theory in Chinese Medicine is a most valuable and useful book for all acupuncture clinicians, either experienced practitioners or young graduates. His outstanding explanation on the Classics, his personal experiences in making differentiation of syndrome, his clinical application of the Five Shu Points, his successful cases, his unique and powerful point pairs, all of these will help you to meet with success in clinical practice.

It should be one of the top five books on your desk!

Books published in 20th century or later

- Selected Clinical Experiences of Acupuncture and Moxibustion – by Jiao Guorui This book included the most important clinical wisdoms and experiences of famous Acupuncturists and Moxibustion - between 1949 – 1977. The book is in Chinese
- Serial publications - One Hundred Outstanding Chinese Medicine Clinician in the 20th Century.

The series was written by very well known Chinese medicine physicians, dermatologists, gynecologists, pediatricians, and acupuncturists e.g. Fuzhou Pu, Boxuan Qian, Zuomin Song, Bingnan Zhao, Dan-An Cheng, and Jiasan Yang. - Published by National Bureau of Chinese Medicine.

Could you please give us a personal example about how you do this in your clinic?

I personally like treating patients during the day and enjoy my time reading in the night from my collection of several thousand books related to Chinese medicine. I take notes on case studies and especially the formulae and acupuncture points used. Old experiences must be tested in the clinic. I also carry a small note book in my pocket all the time, a habit I learned from old generation of medical experts (Pu fuzhou, Zhang Xiaoqian), I take notes which I will review later. It may be a little extravagant but any book or publication that I think "important", I often obtain 2 copies of. One I keep in my library and the other I keep in my car or in treating rooms so I can refer to it wherever I may be.

How do you deal with "down time", a time that a practitioner experiences from time to time when he or she has a few bad days and find their therapies are not as effective.

This is a good question. Although I am confident with my diagnosis and my treatment decisions which in most cases end up with favorable results, I do have "down time" occasionally. Fortunately, it does not happen too often. For example, I mentioned before that I have very good results in treating patients with hot flushes. However, I have come across cases where after a number of treatments with acupuncture and herbal medicine, the conditions did not improve or sometimes no change or sometimes got worse. My first reaction is to re-examine the history carefully making sure that I have made a correct differential diagnosis. I feel that it has provided me with a chance to improve my knowledge in finding the effective treatments by reading more books. I will not hesitate to ring some of my teachers or colleagues (most of them are in China) and discuss the case or cases.

It is also important for me to carefully discuss with the patient so they feel confident with me and happy to continue with the treatments. Actually it is time like this "down time" that increases my interest in Chinese medicine and makes me realize how diverse and powerful Chinese medicine is.

In fact, after this "down time", my clinical experience will go up one level higher!!

What would you recommend to students studying Chinese Medicine?

For current students learning from outstanding teachers is still very important, it will shorten the time to becoming an experienced practitioner, and avoid mistakes from any text book study.

If you are a non Chinese speaker and you are less than 30 years old, you have to study Chinese, as a well-known Chinese medicine practitioner in Australia Steven Clavey. I began to study English when I was 28 years old.

Do you have any other advice you would like to tell young doctors?

Read as much as you can, learn from outstanding doctors as much as you can, treat as many patients as you can (approximately 20 patients a week, 1,000 a year) and summarize your own successful cases.

Where would you like to see Chinese medicine in 50 years?

I would like to see Chinese medicine (acupuncture and herbal medicine) as popular in the world as it is in China.

Where do you think Chinese medicine will be in 50 years if we continue with the current path?

Herbal medicine will be as popular as acupuncture in the world. Integrated hospitals of Chinese medicine and Western medicine will appear in Western Societies.

Questions for acupuncturists

What are the key factors for a high success rate? Point selection, location, needling techniques?

Correct differentiation of syndrome and point selection, proper point location and needling techniques.

How do you understand De Qi? Do patients have to feel a strong De Qi sensation for acupuncture to be successful?

There are two aspects to understand a De qi sensation: a) from the patient's soreness, electrical feeling or warm feeling and b) from the practitioner, sensation like when a fish bites hook.

When we treat difficult cases we often use the qi flow method to induce qi to a diseased organ or area, the technique will increase your success rate.

For some sensitive / or super sensitive patients, especially for their first treatment, strong stimulation should be avoided. If your differentiation and point prescription are correct, you just need to insert the needles at the correct depth, and you may achieve excellent results.

Prof. Wang, Juyi said: "as a doctor, when one treats a patient, that person's channel should be treated delicately and with respect. One should create effects in the channel systems that

are like the music of an experienced musician. Don't beat on the strings or play indiscriminately. A successful treatment should be like conducting a piece of beautiful music."

How do you understand individual variation in sensitivity to needling?

Different people respond in various ways such as dull sensations, normal, sensitive, supersensitive, some also have a fainting needle history, therefore it is important to treat all patients individually. Usually you will know which type the patient is as soon as you insert the first needle. Use very fine needles and select fewer points for supersensitive patients.

Some people say that Australian patients are more sensitive to needling than Chinese do; and the old school of strong De Qi needling does not apply to Australian population well. Given your experience in both countries, what do you think about this comment?

From my own experience, I have not noticed any big difference in needling sensation between patients from different countries. Many patients may not have a strong De Qi sensation. The importance is that the needles are applied to the right depths, in the right positions, it may cause only a mild De Qi sensation, the treatment should be effective.

What are the key factors for a successful acupuncturist?

One must have adequate knowledge on channel theories especially examination of channels, point prescription and proper needling techniques. Follow good teachers and learn from them, as the saying goes 'practice makes perfect'.

Could you please give us your thoughts on why many trials find no difference between real and sham acupuncture. Sham acupuncture involves shallow needling or non-invasive needling on non-acupuncture. De Qi is often avoided.

I have not taken much interest in studies done in acupuncture which are carried out using test methods based on western medicine (evidence based etc.), so I may not be the right person to answer such question. Regardless of the outcome, I believe that results depend strongly on the experience of the person applying the acupuncture needles, the selection of points used, the sample size. In many trials, the test group may have the same western medical diagnosis but according to Chinese medicine, each subject in the group is an individual, so the selected points may not be effective for all participants involved.

ESCS

Current Research and Clinical Applications

Blinding in Clinical Trials

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In randomised controlled trials (RCTs) blinding is an important design feature to control for bias. Studies that have not been blinded have been shown to produce exaggerated treatment estimates. Blinding of trial participants, researchers and outcome assessors can be difficult to establish and maintain. Recently a number of reviews have asserted that some 'assurance of blinding' (statistically evaluating whether trial participants, researchers and outcome assessors are unaware of which intervention or treatment group they have been allocated to) should be reported in published studies. Several recent journal articles have reviewed the assessment of blinding in biomedicine RCTs as well as some herbal medicine studies.

Montori and colleagues¹ evaluated 200 biomedical RCTs for evidence of blinding assurance. They reported that explicit reporting of blinding status for the trial participants only occurred in 15% of the studies, while blinding of the researcher/health care provider was reported in only 5% of studies. They also found that blinding of the data collectors' occurred in only 12% of trials and data analysts were reported as blinded in only 2.5% of cases.

Fergusson and colleagues² evaluated a random sample of 191 trials from leading general medicine and psychiatry journals. They reported that only seven of the 97 general medicine trials provided evidence on the success of blinding, with five of the seven reporting the success of blinding was imperfect.

For the psychiatric journals the success of blinding was reported in only eight of the 94 trials (9%) with four reporting the blinding was imperfect.

A more recent study by Boutron³ reviewed 90 biomedicine studies and found that 58 of the studies did assess blinding. However, there was variance in consistency in timing of assessment and mode of answering. They further stated that only 57% of the trials used statistical analysis whereby the proportion of correct guesses was compared to those produced by chance. A year later a systematic review of the methods of blinding of 472 trials by the same group⁴ concluded that more than half of the studies (N=472; 58%) described the blinding but 236 papers (29%) gave no details and only 111 gave some data on blinding.

Finally, Machado⁵ reviewed 126 trials using 25 different placebo interventions. They reported that the adequacy of blinding was assessed in only 13% of trials. They also noted that in 20% of the studies the placebo intervention was a potentially genuine treatment. To overcome this problem Brinkhaus et al⁶ has proposed a placebo quality checklist for pharmacological trials to help investigators select an appropriate placebo and help readers interpret the study findings with more care.

Few studies have looked at the issues that face herbal medicine researchers when designing and conducting a

placebo controlled trial. The placebo in some clinical trials may be difficult to formulate because Chinese medicine preparations have special macroscopic (appearance, weight, size of the particles) and sensory characteristics (color, smell and taste) making a perfectly matching placebo nearly impossible.

Zick⁷ assessed whether trial participants could distinguish between ginger and placebo capsules. They found that of the eighty people in the trial, 42 correctly identified the capsule they received. Of those that received the placebo capsule, 82% correctly identified their allocation status. Of those subjects who received the ginger, 22.5% correctly identified their capsule. With the increasing evaluation of Chinese herbal substances in RCTs the issue of blinding evaluation is being scrutinised⁸. Herbal substances tend to have a strong odour and powders may be highly coloured due to the colour of the base herbs used in the formulation. More recently Qi and colleagues⁹ evaluated the validity of placebos used in blinded RCTs of Chinese herbal medicine. They reported that of the 77 full length articles they evaluated nearly half did not pay any attention to the physical quality of the testing drug and placebo. Only two articles specifically validated the comparability of the placebo herbal substance and the testing herb or drug. They concluded that "quality specifications and evaluation of the placebo should deserve attention to reduce the bias in randomised controlled studies of Chinese herbal medicine".

In summary placebos that are improperly formulated or implemented may introduce bias into a trial. Even though blinding is important in RCTs, and thousands of trials are conducted every year, the reporting of blinding and success of blinding are often inadequate. Many researchers and a number of reviews of blinding and its evaluation have concluded that there is minimal assessment of blinding and when there has been it has been poorly reported. Future Chinese herbal medicine studies that incorporate a placebo control need to evaluate carefully their choice of placebo material and to establish if they are successful in blinding the researchers, trial participants, outcome assessors and data analysts.

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Smoking Cessation

Peter Ferrigno

The application of acupuncture for substance withdrawal in general was identified early in the history of acupuncture in the West. The link between substance abuse and acupuncture may be understood as a reflection of the desire of proponents of acupuncture in the West to demonstrate that an ancient, traditional medicine could be used for 'modern diseases'. Much of the work in this area was stimulated by reports of Smith's pioneering work with substance abusers, mainly heroin, in the late 1970s.^{2,3} In Australia, Smith's work captured the attention of a number of traditionally trained acupuncture practitioners. The intention was to apply naturalistic therapies to a local and intractable public and social health concern. Indeed, a peculiarly Western inspired approach to needling was applied and known as the National Acupuncture Detoxification Association (NADA) protocols. It is also worthy to note that, in Australia, this approach helping substance abusers through the acute detox phase has been used for over twenty-five years. The central point to this introduction is that not only could acupuncture help in general medical conditions, it could also help where there was a significant social and psychic dimension to health care.

Much has already been written suggesting the view that acupuncture may indeed retain a strong neuro-physiological basis that helps us understand acupuncture mechanisms. The assumption was that such processes could also help us understand addictive, self-harming behaviours, locating the problem as residing within the individual.

Contrary to anecdotal clinical reports, the application of acupuncture and related interventions to smoking cessation in particular, however, does not seem to bear out the initial promise

with most reviewers suggesting that further methodological problems need to be overcome. It seems that there is no consistent evidence that acupuncture is effective for smoking cessation.

Adrian White in collaboration with a number of other colleagues has written extensively on the subject especially from the point of view of reviewing acupuncture trials on quit smoking.⁵ We need to bear in mind that the inclusion criteria, was that trials must be of the randomised controlled trial (RCT) type. Taking heed of White's earlier reviews, Bier et al¹ implemented a trial taking into account concerns raised by White et al regarding design flaws, randomization and other factors. Published in 2002, their conclusions were positive. They found that the combination of acupuncture and a smoking cessation educational program demonstrated rates of 40% cessation and 53% post treatment reduction in total cigarettes smoked. Completing another review of the literature in 2006, White et al⁴ rejected Bier et al findings because of 'inconsistencies in data presented which could not be clarified by contacting the authors'. No further discussion ensues in their report detailing with what the inconsistencies were.

Where does this leave practitioners working in the field? What does seem to be somewhat bewildering to this writer is the preponderant attitude of researchers to the notion of 'one size fits all' in relation to acupuncture points used in trials. In some instances the reader is not told which points were used at all other than being offered a statement such as, points used for 'good for the lungs'. In many trials, auricular points are used which appear to be NADA protocol points or variations of it and as stated earlier, tend to be used in the acute detox phase of heroin withdrawal. Sometimes auricular points are combined

with a body point(s). Interestingly, the assumption behind using NADA points is that their actions are transferable to tobacco smoking cessation. Again, the assumption of one-size fits all re-appears.

In addition, minimal attention is given to for instance the rationale for point selection. From a simple content analysis approach, it is unusual to read more than short paragraph on point selection. The lack of intent to discuss these matters is conspicuous by its absence. In contrast, there is often substantial discussion on the minutiae of research design.

Traditionally trained acupuncturists are aware of the axiom '*tong bing yi zhi - yi bing tong zhi* - different treatment for the same disease and same treatment for different diseases' which is another way of saying one size does not fit all. Acknowledging the notion, it is rather strange that researchers, presumably cognisant of this fundamental treatment principle persist in the attitude of minimising, indeed, discounting the importance of traditional acupuncture point selection. If acupuncture points are taken to be the 'bread and butter' of acupuncture why then do researchers give them so little attention? From a traditional acupuncturist's perspective, such research trials are flawed from the outset.

We are still left with our first question – how useful is acupuncture in helping smokers quit? Perhaps the RCT is not the only or best way to explore addictive, self-harming behavior of tobacco smoking.

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Research Snapshots

Cochrane Review on the effects of Chinese herbal medicines on impaired glucose tolerance and impaired fasting glucose

Prof. Kerry Bennett

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Higher than normal blood glucose levels — Impaired glucose tolerance (IGT; fasting blood glucose <7.0 mmol/L and two-hour post-load blood glucose 7.8-11.0 mm/L) and impaired fasting glucose (IFG; fasting blood glucose 6.1-6.9 mmol/L) — are often present for several years before formal diagnosis of diabetes mellitus.

OBJECTIVES: This systematic review was undertaken to determine the efficacy (effects and safety) of Chinese herbal medicines people with IGT or IFG.

METHODS: Protocols stipulated in the 2008 Cochrane Handbook for Systematic Reviews were adopted. Sensitive validated search strategies were used to source randomised clinical trial (RCTs) studies up to February 2009 from The Cochrane Library, PubMed, EMBASE, AMED, Chinese language databases, SIGLEA and databases of ongoing trials.

RESULTS: Of 1926 initially identified records, 83 were examined further and 16 studies (n = 1391) met inclusion criteria for full review. These 16 had all

been conducted from 2001 onwards, over a period from four weeks to two years, and involved 42–168 participants ranging in age from 44 to 66 years who had been recruited from hospitals or clinics in China (15) and Japan (1). Interventions all included complex herbal formulas as decoctions, pills/capsules or granules. The most common ingredients were *Huangqi* (*Radix Astragali Membranaceus*; 10 RCTs), *Shanyao* (*Radix Dioscoreae Oppositae*; 8 RCTs) and *Gegen* (*Radix Puerariae*; 4 RCTs). Lifestyle modification was mostly used as co-intervention (n = 12) and control (10) – though no studies gave comprehensive descriptions of these. Other controls were placebo (3) and pharmacology (metformin [2]; acarbose [1]; antihypertensive medication [1]). The most apparent finding was that participants receiving herbal medicine and lifestyle modification (n = 8 RCTs; 625 participants) were more than twice as likely to have normalised blood glucose by the end of the trial than those undertaking lifestyle modification. Of note, however, is the potential bias on outcomes none of these eight studies having blinding in their designs. Of the 3

out of 16 trials with double blinding and low risk of bias, significant results were found for some but not all biomedical markers.

CONCLUSION: This review points to the promise of a group of Chinese herbal medicines to lower blood glucose and to prevent diabetes mellitus. However, the general heterogeneity of samples, herbal complexes tested, methodologies and results does not allow generalisation or validation for clinical practice guidelines. However, this review does indicate the need for continued research using well-designed RCTs which build rate of reversion to normal blood glucose into statistical calculations and which include measures of glycosylated haemoglobin A1c, the preferred diagnostic test for diabetes.

Grant SJ, Bensoussan A, Chang D, Kiat H, Klu[[NL, Liu JP and Li X. Chinese herbal medicines for people with impaired glucose tolerance or impaired fasting blood glucose (Review). Cochrane Database of Systematic Reviews 2009; Issue 4.

Prof. Kerry Bennett

Traditional Chinese acupuncture and placebo (sham) acupuncture are differentiated by their effects on μ -opioid receptors in patients with fibromyalgia

John Deare

BACKGROUND: Controversy remains regarding the mechanisms of acupuncture analgesia. A prevailing theory, largely unproven in humans, is that it involves the activation of endogenous opioid antinociceptive systems and on μ -opioid receptors (MORs). In addition, endogenous opioid peptides have been found to mediate placebo-induced analgesia. This overlap may explain a lack of differentiation between traditional acupuncture (TA) and sham acupuncture (SA) in many controlled clinical trials.

OBJECTIVE: The authors compared both short and long-term effects of TA with SA treatment on in vivo MOR binding availability in patients diagnosed with fibromyalgia.

DESIGN/SETTING/SUBJECTS: 20 female patients were randomized to receive eight either TA or SA treatments over four weeks. SA intervention was performed on non-acupuncture points and did not break the skin. Positron emission tomography (PET) with ^{11}C -

carfentanil was performed once during the first treatment session and once at one month later following the eighth treatment.

OUTCOME MEASURES: The severity of clinical pain was assessed immediately before PET1 and after PET2 with the Short form of the McGill Pain Questionnaire.

RESULTS: TA evoked short-term increases in MOR binding potential in multiple pain and sensory processing regions including the cingulate (dorsal and subgenual), insula, caudate, thalamus, and amygdala. TA also evoked long-term increases in MOR binding potential in some of the same structures including the cingulate (dorsal and perigenual), caudate, and amygdala. The enhanced MOR binding potential were absent in the SA group where small reductions were observed, an effect more consistent with previous placebo PET studies. Long-term increases in MOR binding potential following TA were

also associated with greater reductions in clinical pain. Intensity of pain was, however, not statistically significantly different between TA and SA groups.

CONCLUSION: Overall the data strongly imply divergent opioid receptor mechanisms in true acupuncture and sham acupuncture interventions. Although the fundamental mechanism underlying these processes await further investigation, central opioid receptors appear to be involved in both treatments, albeit with differing effects within the same brain structures.

*Harris RE, Zubieta JK, Scott DJ, Napadow V, Gracely RH, Clauw DJ. Traditional Chinese acupuncture and placebo (sham) acupuncture are differentiated by their effects on μ -opioid receptors (MORs). *NeuroImage* 2009;47:1077-85.*

John Deare

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ACUPUNCTURE IS NOT EFFECTIVE IN INDUCING CHILD BIRTH, CK PAIN AND LOWER LIMB SYMPTOMS

OBJECTIVE: The aim of this study was to evaluate the effectiveness of acupuncture in stimulating foetal delivery by shortening the time from acupuncture treatment to delivery, encouraging spontaneous delivery or decreasing the rate of caesarean-section.

METHODS: Women at 38 to 41 weeks of their first child pregnancy were recruited. Subjects were randomised to receive traditional Chinese medicine (TCM) acupuncture, sham acupuncture, or usual care. Acupuncture treatments included bilateral needling on LI4, SP6, BL32, and BL54 and retained for 30 minutes for five times over two weeks. Sham acupuncture treatments included non-acupuncture points with shallow insertion. The usual care group received routine pre-natal care from their care provider. Primary outcome was time from enrolment of first acupuncture session to time of delivery. This sentence is unclear. Secondary outcomes included pregnancy related complications, rate of caesarean-section and spontaneous delivery.

RESULTS: Eighty-nine women who had their first child were recruited from prenatal chart review and web-based advertising. 30, 29 and 30 women were randomised into TCM acupuncture, sham acupuncture and usual care, respectively. There were no significant differences among the groups in time from enrolment to delivery although sham acupuncture group had a shorter delivery time on average. There was no significant differences among groups in pregnancy related complications, rates of caesarean-section, and spontaneous delivery.

CONCLUSION: TCM acupuncture was not effective in inducing spontaneous labour or reducing the rate of caesarean section in comparison with sham acupuncture or usual care.

COMMENT: The authors have previously conducted an acupuncture study on inducing labour with positive finding and supporting the use of acupuncture. The main difference between the two studies is that the previous study included higher risk patients and acupuncture was delivered close to the delivery time (mean: 40 1/7 weeks); whereas this trial included fewer high risk patients and the treatment was given early (mean: 38 5/7 weeks). It is possible the closer to the delivery time, the more ready it is for labour to be induced.

Asher GN, Coeytaux RR, Chen W, Reilly AC, Loh YL and Harper TC. Acupuncture to initiate labor (Acumoms 2): A randomized, sham-controlled clinical trial. J Matern Fetal Neonatal Med 2009;22(10):843-848.

IS SHAM ACUPUNCTURE REALLY INERT? A CHALLENGING QUESTION

This is a commentary of current acupuncture studies comparing the effect of real and sham/minimal acupuncture on clinical conditions. Three multicentred randomised studies and one meta-analysis on migraine have shown that both real and sham acupuncture were as effective as each other and both were more effective than standard treatment, placebo medication or waiting list controls. Healthy subjects responded to sham acupuncture treatment with activation of the limbic system whereas patients with pain responded to sham acupuncture treatment with deactivation of the limbic system. Patients also responded

to sham acupuncture differently depending on their conditions. With IVF, sham acupuncture produced higher pregnancy rate than real acupuncture did. With irritable bowel syndrome, both real and sham acupuncture groups showed no difference in quality of life assessment. With patients suffering from environmental illnesses, cortisol concentration increased without any group difference. Acupuncture ritual also induced a psychological re-orientation which might make sham acupuncture as powerful as real acupuncture because both interventions altered functional connectivity.

Both experimental and clinical studies showed placebo acupuncture was not psychophysiologicaly inert. The authors argue that placebo-controlled acupuncture studies introduce bias against the finding instead of reducing bias. The authors recommend acupuncture to be compared with standard treatments before establishing whether acupuncture is effective again placebo interventions.

Lundeberg T, Lund I, Sing A and Nashund J. Is Placebo Acupuncture What It is Intended to Be? Evid Based Complement Alternat Med 2009 DOI: 10.1093/ecam/nep049

ACUPUNCTURE CAN HELP PATIENTS IN THE EMERGENCY DEPARTMENT (ED)

OBJECTIVE: This is a non-randomised pilot study assessing the efficacy of acupuncture to reduce ED patients' pain and the feasibility of performing acupuncture in ED.

METHODS: Acupuncture was used to treat ED patients with acute non penetrating extremity injury. All patients received ice, elevation and splinting

when appropriate. Pain was assessed before acupuncture treatment, right after (time 0) and every 30 minutes thereafter by using visual analogue scale (VAS) for the duration of their stay in ED. Telephone calls were also made within 72 hours after discharge to assess patients' intensity of pain, complications, and satisfaction with acupuncture. Average time spent in the fast track area and the average time in the department (TID) for all fast track patients with similar injury were compared. ED physicians were asked not to administer analgesics before or during acupuncture treatment. If patients requested and administered analgesics before or during acupuncture treatment, patients were withdrawn from study.

RESULTS: 47 patients were approached and 20 consented to participate. Of the 20 participants, mean age was 33 and 14 of them were male. They suffered from musculoskeletal contusion, injury, sprain or closed fracture. Three of them did not complete the protocol and not included in the analysis. The median VAS score was reduced by 16mm (range 0-60mm) out of 100 at time 0. Median numerical rating scale at follow-ups was 3 out of 10. Median TID was 135 minutes (range 55 to 255 minutes). Median TID of patients who did not receive acupuncture was 90 minutes (range 52 to 270 minutes). There was no significant difference in TID between acupuncture and the history control group who did not receive acupuncture. The author did

not define the control group clearly in the paper. The median satisfaction score was 5 (range 3 to 5).

CONCLUSION: Acupuncture can be an effective analgesic intervention for patients with acute extremity injuries and acupuncture did not increase patient's TID. Patients were satisfied with acupuncture treatment. Minor complications were experienced by acupuncture participants.

Arnold AA, Ross BE, and Silka PA. Efficacy and feasibility of acupuncture for patients in the ED with acute, nonpenetrating musculoskeletal injury of the extremities. Am J Emerg Med 2009;27(3):280-284.

Shao-chen David Lu

Book Review

Acupoint Dictionary

Second Edition
David Hartmann
Churchill Livingstone, 2009
ISBN 9780729538831

David Hartmann's *Acupoint Dictionary* 2nd Edition was launched in May 2009 at the Melbourne AACMAC (Australasian Acupuncture and Chinese Medicine Annual Conference). Essentially the *Acupoint Dictionary* is a quick-reference guide to TCM acupuncture treatment for 1,000 signs/symptoms/diseases and 85 TCM patterns (principally Zang Fu and channel patterns). The text is accessible and the many tables which constitute the bulk of the text are well-designed and easy to read. The spiral-bound format falls open and lies flat on the desk which is a convenient feature for students or practitioners who wish to reference information in the clinical setting.

There are a number of levels on which this text can be utilised. Firstly it is a fairly comprehensive reference for recently-graduated practitioners who would find it very useful as a prompt for the treatment of familiar conditions, particularly while the new practitioner is still developing confidence. Secondly when confronted with an unfamiliar Western diagnosis, or a condition not

previously encountered in practice, the *Acupoint Dictionary* can provide a starting point, an orientation, to provide an overview and also to direct the reader to further more detailed references. The in-text referencing to 158 references is one of this book's strongest and most useful features even for experienced practitioners. In a subject as vast as TCM the task of locating very specific information on a particular clinical problem can sometimes be daunting. An overview with sign-posts to more detailed and specialized information, such as *Acupoint Dictionary* provides, is a valuable addition to the TCM acupuncture literature.

Another outstanding feature of this book is the way it places TCM acupuncture in a modern medical context, seeing acupuncture as an integral part of the Australian health care system. The need to recognize the scope of acupuncture practice, and to refer to other sectors of the health care system when acupuncture is not the most appropriate treatment is emphasized in *Acupoint Dictionary* with advice

ranging from "Ambulance, DRABCD" to "refer to speech pathologist". It is refreshing to encounter such "common sense" in an acupuncture text. Whilst it is acknowledged that historical TCM writings may have recommended 200 to 300 moxa cones on a salt-filled navel for Yang Collapse, in a modern context "Ambulance, DRABCD" is undoubtedly more appropriate.

Acupoint Dictionary also includes some useful appendices and a set of fold-out acupuncture charts.

In short, *Acupoint Dictionary* is a book to leave open on the desk in the clinic, not to sit on a shelf in a library. It is a book designed to be used to assist acupuncture students and practitioners as either an aide-memoire to the familiar or an orientation to the unfamiliar in a clinical setting. Even veteran practitioners are likely to learn something from this first publication by David Hartmann, a promising new Australian TCM author.

Reviewed by John McDonald

Chinese Herbal Medicine: Formulas & Strategies

Second Edition

Compiled and Translated by Volker Scheid, Dan Bensky, Andrew Ellis and Randy Barolet.

Eastland Press, 2009

ISBN 9780939616671

It was 19 years between the publication of the first and second edition of *Formulas & Strategies*. As the authors note, the need to “contribute to a deeper understanding, utilization and investigation of China’s medical tradition in the West” prompted the development of the second edition. Two new members have been recruited to the project (Scheid and Ellis) and the number of pages has nearly doubled, from 562 to 1019 pages, despite minimal increase in the physical dimensions of the text due to the use of thinner quality paper.

The text format is similar to the first edition. Again formulas are separated into categories based on their therapeutic action. Three new categories have been added to the original number of 18, these being formulas that treat abscesses and sores, formulas that dispel summerheat and those that are used for external application. In total, 340 principal herbal formulas are discussed in detail, up from 254 in the first edition, with an additional 460 variations and associated formulas mentioned for a total of 800. Each principal formula is discussed in terms of:

- Name of the formula in both Chinese characters, English and Pin Yin;
- Textual source of the formula;
- Ingredients, both original formula measures as well as modern day dosages;
- Method of preparation describing the practical aspects of formula preparation;
- Actions which link the clinical indications to contemporary Chinese medicine;
- Indications which identifies the pattern or symptoms that are indicated for use of the particular formula;
- Analysis of formula discusses the formulation of herbs that make up the formula;

- Cautions and contraindications gives cautionary advice concerning the use of the formula;
- Commentary which has been substantially expanded in this edition. This section deepens the knowledge and understanding of the formula and makes links to basic theory, material medica, diagnostics and treatment strategies;
- Comparisons, a completely new section which identifies and distinguishes similar contrasting formula;
- Biomedical indications notes the biomedical diseases that the formula may treat;
- Alternative names of the formula and their source text;
- Modifications that can be made to tailor the formula to a specific symptom or pattern;
- Variations where modifications can lead to a new or different formula name;
- Associated formulas that have a slightly different focus than the original principal formula.

At the end of each section they have retained the comparative tables that differentiate several formulas that have similar symptoms or usage.

The text has a lengthy introduction that gives a historical perspective on the development of the formula as well as outlining general associated treatment strategies. associated with herbal formula. Sentence? Preparation?, dosing and administration methods are also covered as is an overview of both Japanese (kampo) and Korea herbal medicine including its historical development and clinical practice. Several timelines have been added to this section which position important herbal texts or physicians within Chinese historical dynasties.

The book has several appendices including a guide to pinyin pronunciation, a pinyin–English formula cross reference, a list of cited text sources and a bibliography of modern sources. Retained are the basic formulary for symptoms and disorders and the formula index for ease of use.

This text is very clinically focussed and considerably more information has been included in the commentary section. Historical debates and discussions concerning the use of the formula are documented in this section which deepen the clinician’s knowledge and contextualise the formula’s clinical use. The inclusion of comments ? often by the formula’s developer or a snippet from a classic medical text, brings the formula to life for the reader giving them an insight into the clinical reasoning associated with the formulas use by Chinese physicians and scholars over time.

The depth and breadth of the knowledge presented is impressive and is drawn from a variety of Chinese texts yet brought together seamlessly to produce ? a comprehensive and useful book that the authors state is “faithful both to the spirit of the medicine and the realities of the clinic.”

The print text is well presented using two tone print (green and black) for contrast and the hard cover book is strongly bound for heavy use. This text will continue to be the primary clinical text on herbal formula for students and clinicians alike and leaves very little room for improvement in future editions if ever there was to be one.

Reviewed by Chris Zaslowski

What is medicine?

Paul Unschuld (Translated by Karen Reimers).
University of California Press, 2009
ISBN 9780520257665

We are often advised not to judge a book by its cover. On reading the title, 'What is medicine?' my first thoughts were: another one! In this instance, Paul Unschuld's, *What is medicine?* Western and Chinese approaches to healing, the adage's injunction remains intact.

Paul Unschuld, a historian with a keen interest in medicine and healing offers an interpretation that is too often ignored or just not offered to proponents of medicine, Western or Eastern. Rather than offer the reader a chronological account of events on the development of medicine in the West and China, Unschuld turns the question around. He does not seek to explore a history of ideas in medicine but about ideas in history. A thesis of this kind seeks to contextualize the idea of what medicine is and what medicine is like in different places in different times. By making this clear from the outset, one gets the view that the author is not concerned with the morphology of medicine. He wants to know about medicine as a human production, which he relates to social, political and philosophical ideas circulating at the time. He asks a simple question and not unlike the text, we know as the *Su Wen*, the response is a complex one. Thus, he asks such questions as, why has different kinds of medicine existed over the centuries in different cultures. Are there parallels between the different kinds of medicine? Another way of saying this is to ask, why these ideas in this place or culture at this time. In approaching his task in this manner, we are then left wondering what we mean by alternative and complementary medicine.

Here is one example how he situates a simple idea in history. It comes from antiquity and forms part of the network of assumptions that guides what he calls

our model image for understanding the body. In exploring medical ideas from Greek antiquity, he identifies a notion with which we are familiar: self-healing. This is not to say that the Chinese were not aware that some illnesses get better without medical intervention. Rather, Unschuld is more concerned with apprehending the significance and meaning of such an idea why it has persisted for so long. Unschuld notes that the Greeks endlessly debated on the reasons for self-healing. Offering an understanding of the times, Unschuld cogently argues that the idea of self-healing represents the view that the body has a self-interest, an innate capacity to pull itself out of a crisis and move towards harmony. The organism single-mindedly strives for its own well-being. As an organism the body has an interest into self regulate, an idea based on the model image of a self-regulating autonomous political structure. There is no need for a ruler or a monarch, since the individual retains the necessary structures and resources to get better, without external intervention.

In China, the model image of a self-regulating self-governing individual is missing, since such an idea gives express power and influence to the individual self. China has never known a trust in the self-regulating organism. Never, having had a political structure whereby its citizens discuss conflicting interests, Chinese medicine, Unschuld argues, faithfully reflected the authoritarian structures bounded by Confucian ethics, which did its best to maintain order because chaos read political unrest, was to be prevented. The memory of constantly feuding political states was too close for the Chinese. In the case of sickness, the human organism can never be trusted to find the path to health all on its own. Because illness stems from

conflict among various parties within the organism, what is required is that of a wise physician, read also wise ruler, who understands nature's complexities. The ruler knew how to intervene in order to bring about change and more importantly before the sickness could take hold. Self-healing powers were not an issue. But then the Greeks had no idea of circulation. There is many more telling and informative examples provide throughout the book.

Moving closer to the contemporary times, the same question is asked again. What re-imaginings are occurring now in the West and China that may influence our model image of the world and in what ways will medicine change? As a way of answering this question he imagines our world one hundred years or so from now whereby one is writing about the HIV/AIDS crisis of the late twentieth century. Considering another example, what we understand as the Enlightenment Project, that science would show us the way to a bright, more rational, secularised world, has in a strong sense failed us. Science and medicine we note seem to have contributed to our illnesses, we are polluting ourselves and it seems worse still our very home. Our earth is danger. What kind of impact, if any, will this kind of model image have on how we re-imagine science, medicine, philosophy or social relationships in a globalizing world? What will happen to Western medicine? Will Chinese medicine survive in China or in the West? These questions are currently being asked by other writers but Unschuld has given these questions a solid context of meaning.

This book is a must read for all primary health care practitioners. The book asks and seeks to answer a simple question, what is medicine, not from a scientific perspective but from a human on, clearly showing us that medical knowledge is a cultural construct and that knowledge is not something to be bargained for.

Qian Bo-xuan Case Studies in Gynaecology

Compiled by the Xi Yuan Hospital, Beijing, China
People's Medical Publishing House, 2006
ISBN 7117080311

Chinese medicine is an empirical science. Case studies, along with studying the four main classics and being an apprentice to establish practitioners, have always been considered an important form of learning. Many experienced Chinese medicine practitioners also testify to the importance of reading and analysing case studies.

A large proportion of the classic texts in Chinese Medicine are case studies written by famous practitioners or their students. Although the importance of these texts cannot be ignored, it is important to realise that language and diseases change over time. As a result, cases written hundreds of years ago may become incomprehensible to contemporary clinicians and require further interpretation and translation. As well the need of learning from contemporary practitioners arises.

Unfortunately, many recently published case studies are very brief, and patients are commonly successfully treated at the first attempt. The reader fails to understand why a particular formula was used, often marvelling at the skill of the practitioner and left feeling as though their clinical knowledge base is inadequate. In other cases, the English translation is so poor that the essence is lost.

This text by the People's Medical Publishing House is an exception. The book was firstly published in 1978 and edited by staff at the Department of Gynecology at the Xi Yuan Hospital of Chinese Academy of Chinese Medical

Sciences. The English version was subsequently published only recently in 2006. It provides gynaecological cases from the hospital records.

This is a book that one needs to read in a quiet time and with some reflection upon one's own patient experiences. The reader will find many familiar cases in the book and smile at how Dr Qian resolved the medical problems.

The excellence of the book lies in four aspects: the doctor, Qian Bo-Xuan; the completeness of the case histories; the conclusion section at the end of each case and the quality of the English translation.

Dr Qian, who would have been over 110 years old if he were still alive today, was a famous gynaecologist in Chinese medicine. He saw the incursion of Western medicine in early 20 century China and realised the need to use knowledge from both Chinese medicine and the Western medical sciences. As the foreword states he served "as a link between the past and the future in the modern development of Chinese medicine". Such a link is particularly relevant to practitioners in countries outside of China.

What I find the most helpful is to see how the cases evolved and were treated by Dr Qian. The majority of the cases had three visits, while in some cases six to nine visits were recorded. At the initial visit, a concise case history was presented then followed by diagnosis

and detailed treatment. In the following visits, any changes to the previous signs and symptoms and new symptoms were noted. By examining the changes in the formulae, the reader can appreciate the path of Dr Qian's thoughts and understand how he analysed the case. For instance, most clinicians would know that changing the direction of treatment is a difficult decision. Dr Qian, however, had no hesitation in changing the formula or the direction of treatment at each visit to more suitably address the emerging signs and symptoms, truly reflecting the spirit of Chinese medicine, That is treating the disease according to syndrome differentiation. This demonstrates more adequately the way an experienced clinician deals with complex and changing gynaecological problems.

At the end of each case, a conclusion is stated and the essence of the case is discussed. The reader will find their learning raised to another level.

Finally, the English translation is fluent making the cases easy to read and clearly understood.

The People's Medical Publishing House must be congratulated on publishing this book. The value of the book is definitely exceeds its price. Indeed, what price should one pay for having a quiet, continuing dialogue with experienced practitioners?

Reviewed by Zhen Zheng

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