Integrative Medicine East meets West

Joseph Sung MD, PhD The Chinese University of Hong Kong

• • The question is...

• Is there a need to combine Western and Chinese Medicine?

 Is there a scientific basis to combine Western and Chinese Medicine?

Where is our patient load?

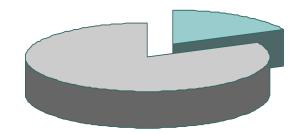
• Elderly

- Musculo-skeletal pain e.g. OA knee, low back pain
- Dementia
- Chronic non-infectious diseases
 - Psychiatric disorders
 - DM, Cardiovascular diseases
 - Gastrointestinal problems
 - Skin conditions
- Cancer
 - No effective chemotherapy
 - As an adjuvant

A consumer-driven health-care system

- Institute for Public Opinion in Allensback
- Germany survey 2005 772 subject interviewed
- "If you were sick, would you prefer a therapy consisting of Western medicine or a combination of Chinese and Western medicine?"

Western Combo



Acupuncture & Osteoarthritis

Articles

Acupuncture in patients with osteoarthritis of the knee: a randomised trial

C Witt, B Brinkhaus, S Jena, K Linde, A Streng, S Wagenpfeil, J Hummelsberger, H U Walther, D Melchart, S N Willich

Summary

Lancet 2005; 366: 136–43

See Comment page 100

Institute of Social Medicine, Epidemiology, and Health Economics (C Witt MD, B Brinkhaus MD, S Jena MSc, Prof S N Willich MD) and Centre for Musculoskeletal Surgery (HUWalther MD), Charité University Medical Centre, Berlin, Germany; Centre for Complementary Medicine Research, Department of Internal Medicine II (K Linde MD, A Streng PhD, D Melchart MD) and Institute of Medical Statistics and Epidemiology (SWagenpfeil PhD), Technische Universität München, Munich, Germany; Division of Complementary Medicine, Department of Internal Medicine, University Hospital Zurich, Zurich, Switzerland (D Melchart MD); and 10 1.0

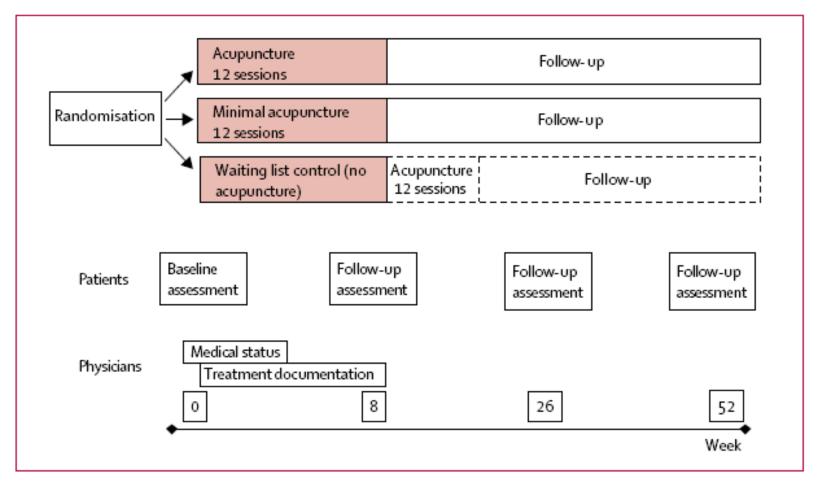
Background Acupuncture is widely used by patients with chronic pain although there is little evidence of its effectiveness. We investigated the efficacy of acupuncture compared with minimal acupuncture and with no acupuncture in patients with osteoarthritis of the knee.

Methods Patients with chronic osteoarthritis of the knee (Kellgren grade ≤ 2) were randomly assigned to acupuncture (n=150), minimal acupuncture (superficial needling at non-acupuncture points; n=76), or a waiting list control (n=74). Specialised physicians, in 28 outpatient centres, administered acupuncture and minimal acupuncture in 12 sessions over 8 weeks. Patients completed standard questionnaires at baseline and after 8 weeks, 26 weeks, and 52 weeks. The primary outcome was the Western Ontario and McMaster Universities Osteoarthritis (WOMAC) index at the end of week 8 (adjusted for baseline score). All main analyses were by intention to treat.

Results 294 patients were enrolled from March 6, 2002, to January 17, 2003; eight patients were lost to follow-up after randomisation, but were included in the final analysis. The mean baseline-adjusted WOMAC index at week 8 was 26 · 9 (SE 1 · 4) in the acupuncture group, $35 \cdot 8$ (1 · 9) in the minimal acupuncture group, and $49 \cdot 6$ (2 · 0) in the waiting list group (treatment difference acupuncture *vs* minimal acupuncture $-8 \cdot 8$, [95% CI $-13 \cdot 5$ to $-4 \cdot 2$], p=0 · 0002; acupuncture *vs* waiting list $-22 \cdot 7$ [$-27 \cdot 5$ to $-17 \cdot 9$], p<0 · 0001). After 52 weeks the difference between the acupuncture and minimal acupuncture groups was no longer significant (p=0 · 08).

Interpretation After 8 weeks of treatment, pain and joint function are improved more with acupuncture than with minimal acupuncture or no acupuncture in patients with osteoarthritis of the knee. However, this benefit decreases over time.

Acupuncture & Osteoarthritis



Witt et al. Lancet 2005

Acupuncture & Osteoarthritis

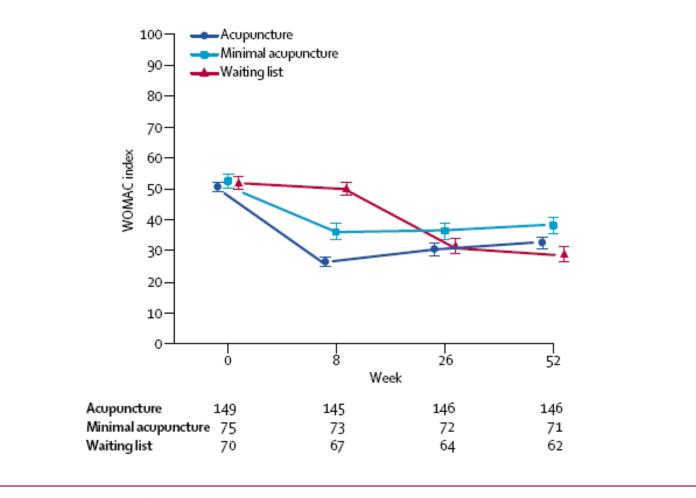


Figure 3: Development of the mean WOMAC Index in the three treatment groups Vertical bars represent standard errors.

Witt et al. Lancet 2005

Gingko for Dementia

Weinmann et al. BMC Geriatrics 2010, 10:14 http://www.biomedcentral.com/1471-2318/10/14



RESEARCH ARTICLE

Open Access

Effects of Ginkgo biloba in dementia: systematic review and meta-analysis

Stefan Weinmann^{1*}, Stephanie Roll¹, Christoph Schwarzbach², Christoph Vauth², Stefan N Willich¹

Abstract

Background: The benefit of Ginkgo biloba has been discussed controversially. The aim of this review was to assess the effects of Ginkgo biloba in Alzheimer's disease as well as vascular and mixed dementia covering a variety of outcome domains.

Methods: We searched MEDLINE, EMBASE, the Cochrane databases, CINAHL and PsycINFO for controlled trials of ginkgo for Alzheimer's, vascular or mixed dementia. Studies had to be of a minimum of 12 weeks duration with at least ten participants per group. Clinical characteristics and outcomes were extracted. Meta-analysis results were expressed as risk ratios or standardized mean differences (SMD) in scores.

Results: Nine trials using the standardized extract EGb761° met our inclusion criteria. Trials were of 12 to 52 weeks duration and included 2372 patients in total. In the meta-analysis, the SMDs in change scores for cognition were in favor of ginkgo compared to placebo (-0.58, 95% confidence interval [CI] -1.14; -0.01, p = 0.04), but did not show a statistically significant difference from placebo for activities in daily living (ADLs) (SMD = -0.32, 95% CI -0.66; 0.03, p = 0.08). Heterogeneity among studies was high. For the Alzheimer subgroup, the SMDs for ADLs and cognition outcomes were larger than for the whole group of dementias with statistical superiority for ginkgo also for ADL outcomes (SMD = -0.44, 95% CI -0.77; -0.12, p = 0.008). Drop-out rates and side effects did not differ between ginkgo and placebo. No consistent results were available for quality of life and neuropsychiatric symptoms, possibly due to the heterogeneity of the study populations.

Conclusions: Ginkgo biloba appears more effective than placebo. Effect sizes were moderate, while clinical relevance is, similar to other dementia drugs, difficult to determine.

Gingko for Dementia

	G	inkgo		PI	acebo		:	Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% Cl
lhl 2008	-1.4	2.8	202	0.3	2.8	202	15.2%	-0.61 [-0.81, -0.41]	-
Kanowski 1996	-2.1	3.15	106	-1	3.05	99	14.9%	-0.35 [-0.63, -0.08]	
LeBars 1997	-0.3	5.35	134	1	5.32	134	15.0%	-0.24 [-0.48, -0.00]	-
Maurer 1997	-2.9	2.5	9	0.8	3.8	9	10.3%	-1.10 [-2.10, -0.09]	
Napryeyenko 2007	-3.2	2.3	198	1.3	2.4	197	15.0%	-1.91 [-2.15, -1.67]	-
Schneider 2005	1.6	5.8	169	0.9	5.6	174	15.1%	0.12 [-0.09, 0.33]	+
vanDongen 2000	0.8	4.1	79	1.2	3.8	40	14.4%	-0.10 [-0.48, 0.28]	+
Total (95% CI)			897			855	100.0%	-0.58 [-1.14, -0.01]	•
Heterogeneity: Tau ² = 0.53; Chi ² = 178.92, df = 6 (P < 0.00001); l ² = 97%									
Test for overall effect: Z = 2.01 (P = 0.04)									Favors Ginkgo Favors Placebo

ADAS-cog=Alzheimer's disease Assessment Scale cognitive subscale; ITT=intent-to-treat; LOCF=last observation carried forward; SD=standard deviation; SKT=Syndrom Kurz-Test; 95% CI=95% confidence interval.

Figure 2 ITT/LOCF change scores for cognition outcomes (ADAS-cog, SKT) by individual trial and pooled standardized mean difference compared with placebo.

Weinmann et al. BMC 2010

Gingko for Dementia

	Ginkgo Placeb		acebo		s	Std. Mean Difference	Std. Mean Difference			
Study or Subgroup	Mean	SD	Total	Mean	\$D	Total	Weight	IV, Random, 95% Cl	IV, Random, 95% CI	
lhi 2008	-0.2	0.73	202	0	0.73	202	17.3%	-0.27 [-0.47, -0.08]		
Kanowski 1996	-0.8	2.1	106	-0.4	2.03	99	16.5%	-0.19 [-0.47, 0.08]	+	
LeBars 1997	-0.05	0.42	138	0.07	0.41	132	16.9%	-0.29 [-0.53, -0.05]		
Napryeyenko 2007	-1.9	2.7	198	0.9	2.4	197	17.2%	-1.09 [-1.31, -0.88]		
Schneider 2005	-0.1	0.4	169	-0.1	0.3	174	17.2%	0.00 [-0.21, 0.21]	-+-	
vanDongen 2000	1.4	4.8	79	1.4	5.5	40	15.0%	0.00 [-0.38, 0.38]		
Total (95% CI)			892			844	100.0%	-0.32 [-0.66, 0.03]	-	
Heterogeneity: Tau ² = 0.17; Chi ² = 63.27, df = 5 (P < 0.00001); l ² = 92%									2	
Test for overall effect:	Z = 1.77	(P = 0)	(80.0						Favors Ginkgo Favors Place	_

ITT=intent-to-treat; LOCF=last observation carried forward; SD=standard deviation; 95% CI=95% confidence interval.

Figure 3 ITT/LOCF change scores for activities of daily living outcomes by individual trial and pooled standardized mean difference compared with placebo.

Weinmann et al. BMC 2010

• • • Tai Chi and Fall

Interventions for preventing falls in elderly people (Review)

Gillespie LD, Gillespie WJ, Robertson MC, Lamb SE, Cumming RG, Rowe BH



Tai Chi and Fall

ARTICLE IN PRESS

YPMED-02853; No. of pages: 6; 4C;

Preventive Medicine xxx (2010) xxx-xxx

Contents lists available at ScienceDirect

Preventive Medicine

journal homepage: www.elsevier.com/locate/ypmed

ELSEVIER

Review

The effects of Tai Chi on fall prevention, fear of falling and balance in older people: A meta-analysis

Inge H.J. Logghe ^{a,b,*}, Arianne P. Verhagen ^{a,b}, Arno C.H.J. Rademaker ^b, Sita M.A. Bierma-Zeinstra ^a, Erik van Rossum ^{c,d}, Marjan J. Faber ^e, Bart W. Koes ^a

* Department of General Practice, Brasmus MC, University Medical Centre Rotterdam, P.O. Box 2040, 3000 CA Rotterdam, The Netherlands

^b Avans Hageschool, University of Applied Sciences, P.O. Box 901 15, 4800 RA Breda, The Netherlands

e Department of Health Care and Nursing Science, Faculty of Health, Medicine and Life Sciences, Maastricht University, P.O. Box 616, 6200 MD Maastricht, The Netherlands

⁴ Zuyd University of Applied Sciences, Centre of Research on Autonomy and Participation, P.O. Box 550, 6400 AN Heerlen, The Netherlands

* Scientific Institute for Quality of Healthcare, Radboud University Nijmegen Medical Centre, P.O. Box 9101, 6500 HB Nijmegen, The Netherlands

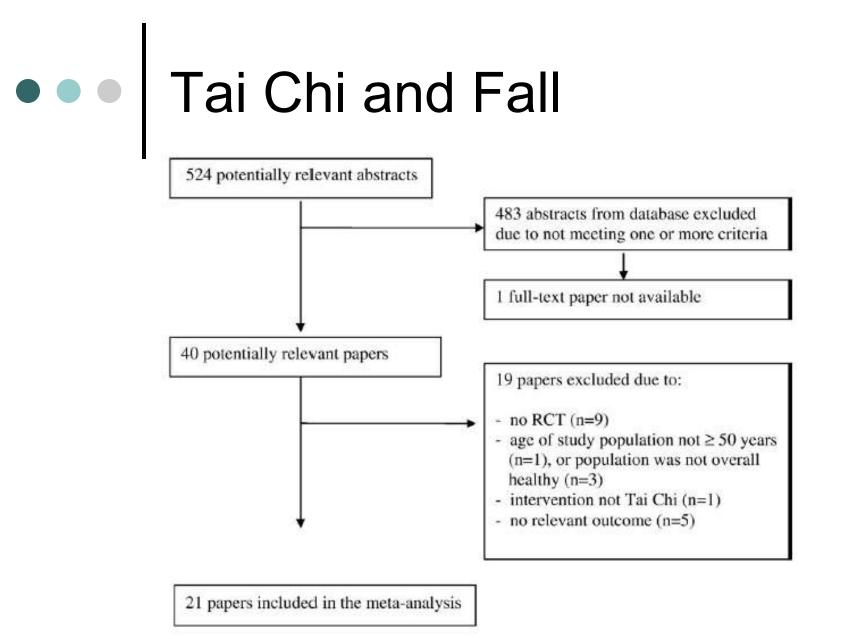


Fig. 1. Overview of the search for relevant trials and papers (Rotterdam, the Netherlands, 2009).

• • Tai Chi and Fall

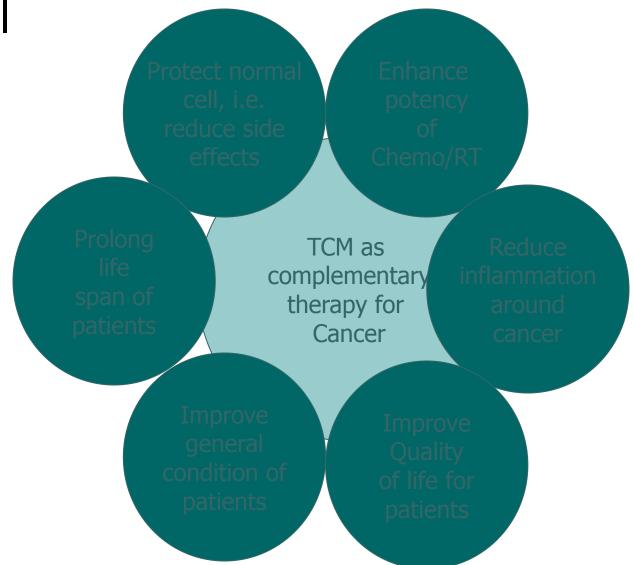
Table 3

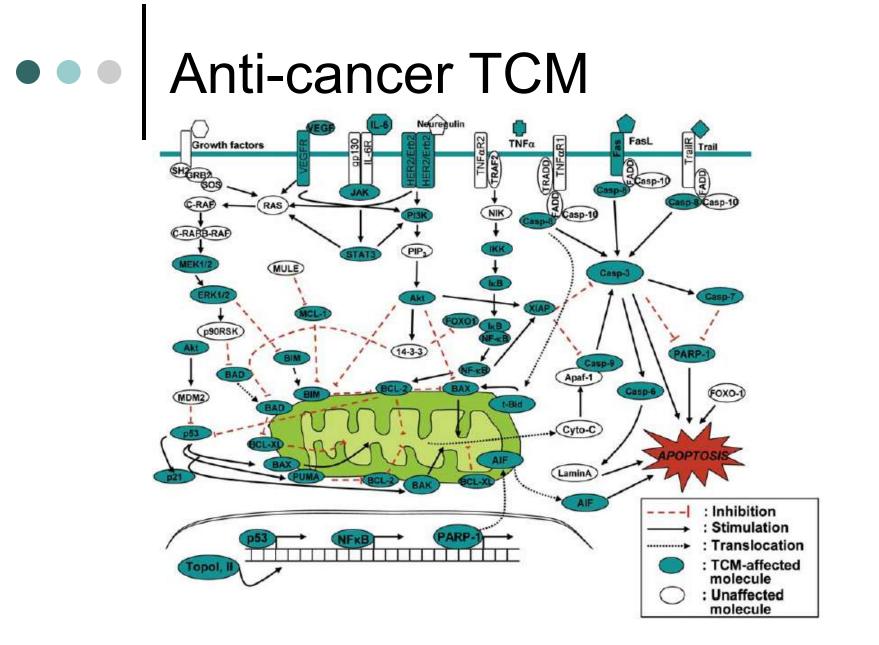
Effect of Tai Chi on falls, fear of falling and balance versus non-exercise controls. Overall results and results of subgroup analyses (Rot

Outcome	Analysis	Studies included	Effect: pooled incidence
Falls	Overall result	Logghe 2009, Voukelatos 2007, Wolf 1996, Wolf 2003, Woo 2007	0.79 (0.60–1.03)
Subgroup analyses	Community setting	Logghe 2009, Voukelatos 2007, Wolf 1996, Woo 2007	0.74 (0.50-1.09)
	High intervention dose >40 sessions	Wolf 2003, Woo 2007	0.71 (0.41-1.23)
	Low intervention dose <40 sessions	Logghe 2009, Voukelatos 2007, Wolf 1996	0.81 (0.54-1.24)
	Post-treatment	Logghe 2009, Voukelatos 2007	0.81 (0.57–1.13)
Outcome	Analysis	Studies included	Effect: standardized diffe
Fear of falling	Overall result	Logghe 2009, Wolf 2003, Zhang 2006	0.37 (0.03-0.70) ^a
Subgroup analyses	Community setting	Logghe 2009, Zhang 2006	0.27 (-0.18-0.72)
	High intervention dose>40 sessions	Wolf 2003, Zhang 2006	0.54 (0.29-0.78) a
	Post-treatment	Logghe 2009, Zhang 2006	0.29 (-0.06-0.65)
	Follow-up (12 months)	Logghe 2009, Wolf 2003	0.31 (-0.10-0.73)
Balance direct measurement	Static post-treatment	Wolf 1997, Voukelatos 2007	0.30 (-0.50-1.10)
Indirect measurement	Static post-treatment	Li 2008, Zhang 2006	1.11 (-0.25-2.46)

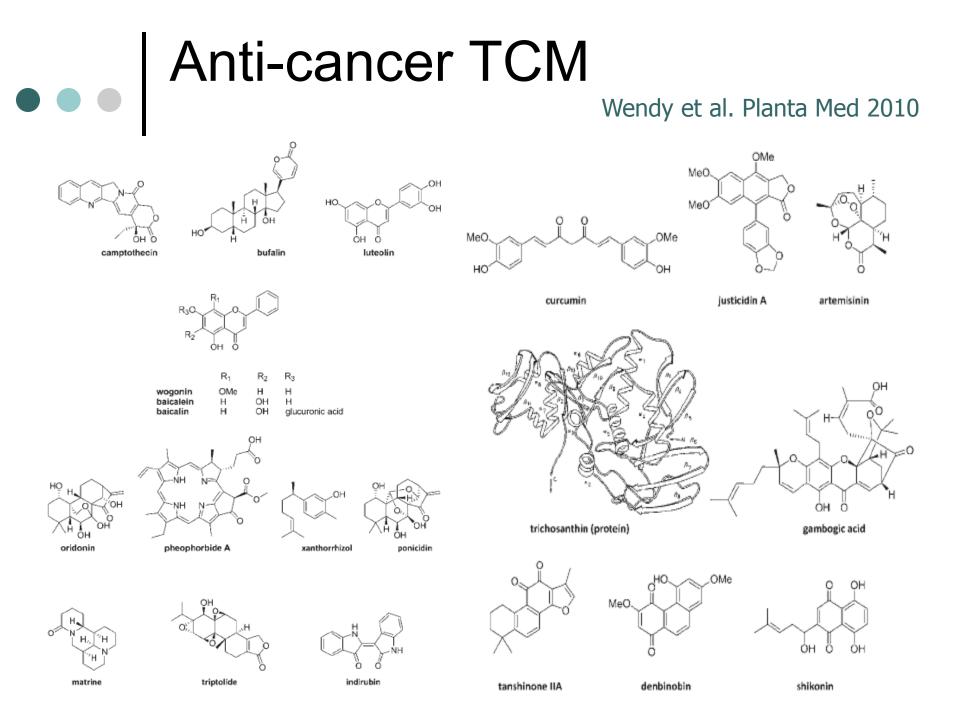
^a Significant result.

Cancer and Chinese medicine





Wendy et al. Planta Med 2010



Anti-cancer TCM

- Cellular and animal studies have provided strong molecular evidence of anticancer activities
- But...
 - Does cellular and animal studies translate into human therapeutic effects?
 - Do they have other side effects?
 - How do they compare with standard chemotherapeutic agents?

Cancer and Chinese medicine

 "In general, most of the published clinical studies are at evidence of level III; in other words, they were trials without rigorous randomization or they involve single group pre-post, cohort, time series, or matched case control studies. As a result, there are a number of contradictory reports regarind the therapeutic effectiveness of TCM on the treatment of cancer"

Wendy et al. Planta Med 2010

TCM and Chronic Hepatitis B

Contemporary Clinical Research of Traditional Chinese Medicines for Chronic Hepatitis B in China: An Analytical Review

Lingyi Zhang,¹ Guqi Wang,^{1,2} Weihong Hou,¹ Ping Li,³ Andrea Dulin,¹ and Herbert L. Bonkovsky^{1,4,5,6}

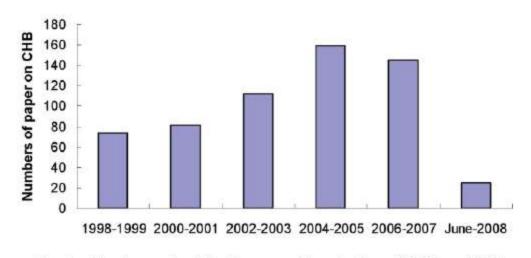


Fig. 1. Numbers of publications reporting studies of TCM on HBV in China knowledge infrastructure from Jan., 1998 to June, 2008.

• • • CHB and TCM

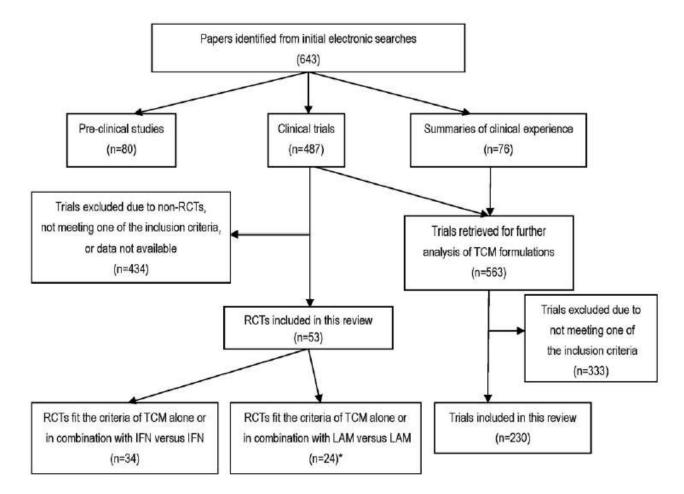


Fig. 2. Summary of studies reviewed and those selected for or excluded from this meta-analysis.

Zhang et al. Hepatology 2010

TCM looks promising

	Table 2. Summary of 55 RCTs of TCMs for CHB in China (January 1988 to June 2008)									
Variables	TCM Alone versus IFN (16 RCTs)	TCM + IFN versus IFN (18 RCTs)	TCM Alone versus LAM (6 RCTs)	TCM + LAM versus LAM (14 RCTs)						
No. of patients	925 993	895 843	453 270	728 820						
Age (years)	34.1 ± 2.8	36.6 ± 2.8	38.4 ± 3.8	34.4 ± 5.9						
Male sex (%)	63.7 ± 16.3	70.3 ± 10.9	54.0 ± 6.3	65.4 ± 13.0						
Duration of										
troatmont (days)	145 + 71 9 (00-260)	147 + 95 (60-260)	$150 \pm 671(20,190)$	212 + 155 (00-720)						
Normalization of serum ALT (%) OR (95% CI) Test of	72.3 ± 20.0 53.5 ± 22.8 2.42 (1.51-3.89)	74.1 ± 16.3 51.5 ± 17.5 3.07 (2.35-4.00)	62.2 ± 19.7 48.8 ± 29.0 1.96 (1.15-3.32)	89.5 ± 7.3 67.2 ± 7.5 3.40 (2.45-4.70)						
heterogeneity (l ²) Overall effect Loss of serum	58.7% P = 0.0003	0% P< 0.00001	60.8% P = 0.01	7.9% P< 0.00001						
HBeAg (%) OR (95% CI) Test of	55.5 ± 16.3 41.7 ± 14.1 1.60 (1.00-2.54)	51.0 ± 12.0 33.6 ± 7.9 2.17 (1.74-2.72)	51.5 ± 17.8 37.7 ± 26.7 1.57 (0.60-4.12)	40.9 ± 18.7 23.5 ± 14.4 2.54 (1.95-3.32)						
heterogeneity										
(l ²)	76.3%	0%	86.6%	0%						
Overall effect	P = 0.05	P< 0.00001	P = 0.36	P< 0.00001						
Clearance of serum HBV DNA										
(%)	51.0 ± 12.1 43.3 ± 11.0	58.4 ± 11.8 43.2 ± 14.6	57.7 \pm 19.5 54.8 \pm 28.2	80.1 ± 18.5 64.6 ± 17.4						
OR (95% CI) Test of heterogeneity	1.31 (0.87-1.98)	2.05 (1.59-2.65)	1.20 (0.61-2.36)	3.20 (2.09-4.92)						
(l ²)	63.6%	26.0%	76.3%	48.6%						
Overall effect	P = 0.20	P< 0.00001	P = 0.59	P< 0.00001						

Table 2. Summary of 53 RCTs of TCMs for CHB in China (January 1988 to June 2008)

Data are presented as the mean \pm standard deviation (range) unless indicated otherwise.

Polygonum (Hu Zhang)

Astragalus (Huang Qi)

A

С



Radix (Da Huang) Phyllanthus (Ye Xian Zhu)

• • TCM and Helicobacter pylori

Online Submissions: wjg.wjgnet.com wjg@wjgnet.com doi:10.3748/wjg.15.4715



World J Gastroenterol 2009 October 7; 15(37): 4715-4719 World Journal of Gastroenterology ISSN 1007-9327 © 2009 The WJG Press and Baishideng. All rights reserved.

BRIEF ARTICLES

A systematic review of treating *Helicobacter pylori* infection with Traditional Chinese Medicine

Jiang Lin, Wei-Wen Huang

TCM and Helicobacter pylori

Table 1 Characteristics of randomized and controlled clinical trials treating Helicobacter pylori infection with TCM

Trials	No. of cases	Age (yr)	Gender (male) (%)	Jadad score	Regimen of TCM group	Regimen of triple therapies group
Chen et al ^[10] (2001)	419	23-68	62.1	2	Fixed formula × 7 d	(PPI + A + F) × 7 d
Hua et al ^[11] (2003)	155	19-65	54.2	2	Changweiqing oral liquid × 14 d	(CBS + A + F) × 14 d
Fan et al ^[12] (2006)	50	NA	NA	1	Anzhong Yin × 28 d	(CBS + A + F) × 14 d
Hua et al ^[13] (2006)	150	23-85	61.3	1	Jianwei Mieyou Inspissant × 60 d	(CBS + A + C) × 7 d + CBS × 49 d
Ma et al ^[14] (2006)	106	44.2/43.8	79.3	2	Weikang Capsule × 60 d	(RBC + A + M) × 14 d
Wang et al ^[15] (2006)	77	NA	47.7	1	Jianpi Qinghua formula × 30 d	(CBS + A + T) × 14 d
Wu ^[16] (2006)	71	19-65	67.6	2	Jiawei Liumo Decoction × 56 d	(PPI + A + M) × 10 d
Yang et al ^[17] (2006)	80	22-65	70	2	Weitongning Tab × 28 d	(CBS + A + M) × 14 d
Zhou <i>et al</i> ^[18] (2006)	56	23-70	47.2	2	<i>Qingwei</i> Decoction × 14 d	(PPI + A + M) × 14 d
Huang ^[19] (2007)	320	18-77	55.6	2	Maimendong Granule × 28 d	(PPI + A + M) × 14 d
Jin et al ^[20] (2007)	98	18-72	67.4	2	Maimendong Granule × 28 d	$(PPI + A + M) \times 7 d$
Wang et al ^[21] (2008)	60	20-64	61.7	1	Mieyou Decoction × 14 d	(CBS + A + T) × 14 d
Ling et al ^[22] (2008)	46	33.2/35.1	71.7	2	Jianwei Yuyang Granule × 6 wk	$(PPI + A + M) \times 1 wk + PPI \times 1 wk$
Wang ^[23] (2008)	149	16-66	61.7	2	Formulae × 2 wk	$(CBS + A + M) \times 2 wk$
Xiao et al ^[24] (2008)	80	19-77	62.5	2	Weiyan Decoction × 20 d	(PPI + A + C) × 7 d
Xin et al ^[25] (2008)	70	48.6/44.6	60	2	Weikang formula × 1 mo	$(PPI + C + T) \times 7 d$

TCM: Traditional Chinese Medicine; PPI: Proton pump inhibitor; CBS: Colloidal bismuth subcitrate; RBC: Ranitidine bismuth citrate; A: Amoxillin; M: Metronidazole; T: Tinidazole; C: Clarithromycin; F: Furazolidone. NA: No available.

Lin et al. World J Gastro 2009

• • TCM and Helicobacter pylori

Table 2 H pylori eradication rates comparison between TCM and triple therapies

Trials	TCM (n/N)	Triple therapies (n/N)	RR (95% CI)	Р	Ref.
Fixed formula vs PPI + A + F	161/211	160/204	1.02 (0.91, 1.13)	0.60	[10]
Anzhong Yin vs CBS + A + F	19/30	14/20	0.90 (0.61, 1.34)	0.63	[12]
Jianwei Mieyou Inspissant vs CBS + A + C	60/100	22/50	1.43 (1.01, 2.03)	0.06	[13]
Weikang Capsule vs RBC + A + M	46/56	42/50	0.98 (0.82, 1.16)	0.80	[14]
Jiawei Liumo Decoction vs PPI + A + M	37/41	28/30	0.97 (0.84, 1.11)	0.64	[16]
Weitongning Tab vs CBS + A + M	32/40	31/40	1.03 (0.82, 1.30)	0.78	[17]
Qingwei Decoction vs PPI + A + M	13/29	19/27	0.64 (0.40, 1.02)	0.05	[18]
Maimendong Granule vs PPI + A + M	166/200	98/120	1.02 (0.91, 1.13)	0.76	[19]
Maimendong Granule vs PPI + A + M	43/50	40/48	1.03 (0.87, 1.22)	0.71	[20]
Mieyou Decoction vs CBS + A + T	22/32	19/28	1.01 (0.73, 1.43)	0.88	[21]
Formulae vs CBS + A + M	81/93	49/56	1.00 (0.88, 1.13)	0.94	[23]
Weiyan Decoction vs PPI + A + C	28/40	29/40	0.97 (0.73, 1.28)	0.80	[24]
Changweiqing oral liquie vs CBS + A + F	53/103	36/52	0.74 (0.57, 0.96)	0.03	[11]
Jianpi Qinghua formula vs CBS + A + T	15/42	29/35	0.43 (0.28, 0.66)	< 0.01	[15]
Jianwei Yuyang Granule vs PPI + A + M	11/24	18/22	0.56 (0.35, 0.90)	0.01	[22]
Weikang formula vs PPI + C + T	26/40	26/30	0.75 (0.57, 0.98)	0.04	[25]

Lin et al. World J Gastro 2009

Chinese Medicine vs Western Medicine

- When there is a potent remedy in WM, why explore CM?
- When there is a potent remedy in WM with serious side effects, should we try CM?
- When there is no remedy in WM, should we try CM to relieve the symptom?

Combining Western and Chinese Medicine Practice

- Combined therapy has fewer side effects
- Consumer demand is high
- High acceptance for Chinese medicine
- Good clinical evidence for the efficacy in some (pain relief, dementia, fall)...but not other (hepatitis, infection) areas

What is Integrative Medicine? Conventional Western Medicine

Complementary and Alternative Medicine

Natural products: Herbal medicine

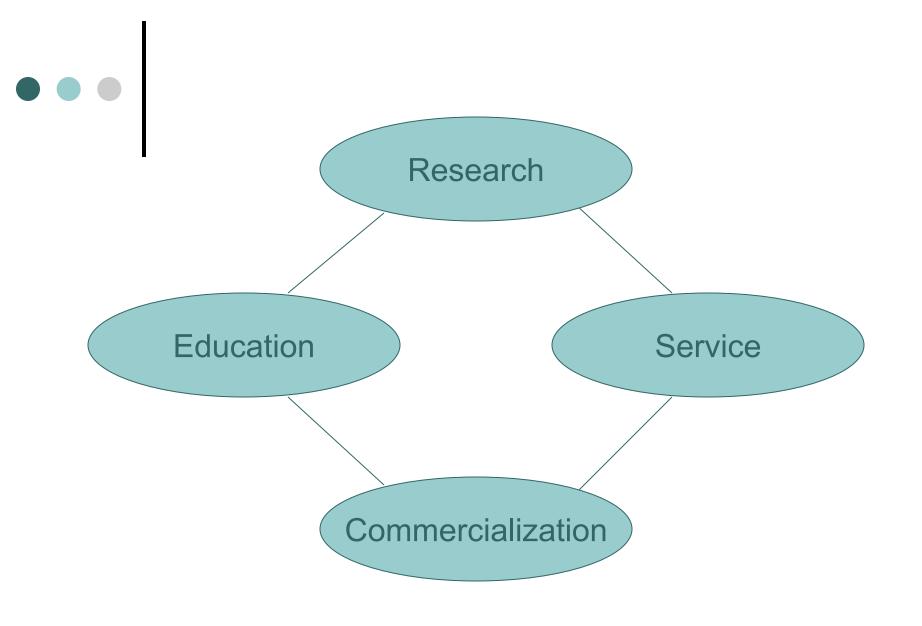
Manipulative and body-based practices: Massage, acupuncture

Mind-body medicine: Mindfulness

Medical care based on robust evidence and theoretical basis through a holistic, individualized approach of healing the mind, body and spirit

Institute of Integrative Medicine: Objectives

- International hub for healthcare service, drug development, research and education
 - Multidisciplinary specialist service
 - Herbal medicine development
 - International education center
- Academic center with social responsibility
 - High value-added economy (healthcare, education and innovation technology)
 - Affordable alternative medical service for the community



Institute of Integrative Medicine: Structure

Institute of Integrative Medicine

CUHK-UMB East-West Center

Integrative Medical Clinic

Drug development and registration Translational clinical research Training and education Multidisciplinary specialist outpatient service Platform for clinical trials and clinical attachment

Integrative Medical Clinic: Model of care

- Combined diagnosis and management protocol
- Combined consultation
- Bi-directional referral system
- Family physician as coordinator for self-referrals
- Joint electronic medical record and streamlined appointment booking system
- Synergy with CUHK/PWH Medical Center

Role in research and education

- Research clinic session
 - Conduction of clinical trials
 - SFDA and FDA standard
- Teaching clinic session
 - Clinical attachment for students, practitioners and visiting scholars

Future development

• Satellite clinics in downtown

- Inpatient consultation service in Prince of Wales Hospital
- Subsidized outpatient service for under-privileged groups

CUHK-UMB Center for Integrative Medicine





CUHK

University of Maryland Baltimore (UMB)

Research in Integrative Medicine

- Translation clinical research for drug development and registration
 - Western and Eastern methodology and outcome measures
 - Mono-therapy or Combination therapy
- Industry-sponsored or investigator-initiated clinical trials
- Strategic plan for SFDA accreditation on TCM

Registration requirements of
 proprietary Chinese medicine in HK

- Product safety
 - Heavy metals, pesticide residues, microbial, toxicity, mutagenicity, carcinogenicity, teratogenicity
- Product efficacy
 - Pharmacodynamics; clinical trial data
- Product quality
 - Manufacturing method; physiochemical properties of crude drugs; product specification, method and certificate of analysis; stability test reports

Herbal medicine for digestive disorders



Tong Xie You Fang 痛瀉要方

He Zi 訶子 Bai Zhu 白朮 Hou Po 厚朴 Bai Shao 白芍 Yi Yi Ren 薏苡仁 Yan Hu Suo 延胡索 Huo Tan Mu 火炭母

Irritable bowel syndrome



Hemp Seed Pill 麻仁丸

Zhi Shi 枳實 Hou Po 厚朴 Xing Ren 杏仁 Bai Shao 白芍 Da Huang 大黃 Huo Ma Ren 火麻仁

Constipation

Chemotherapy-related diarrhea

Qi Wei Bai Zhu Powder 七味白术散

Fu Lin 茯苓 Ge Gen葛根 Gan Cao甘草 Bai Zhu 白術 Ren Shen人參 Mu Xiang 木香 Huo Xiang 藿香

Other research in Integrative Medicine

Public health issues

- Jockey Club School of Public Health and Primary Care
- Policy, financing and healthcare delivery model
- Branch of Cochrane Center on TCM and CAM
 - Systematic reviews and meta-analysis
- Basic science
 - Drug mechanism and development

Education and training: Highlights

- Postgraduate training in Chinese Medicine
 - Clinical research methodology
 - English speaking setting
 - Overseas experience
- Non-Chinese medicine streams
 - MBChB, BSc (Public Health), BPharm
- International networking
 - Visiting scholarships
 - Exchange program
 - Conferences and workshop

Partners: Hong Kong

• CUHK

- School of Chinese Medicine
- Oncology Acupuncture Center
- Institute of Chinese Medicine
- Jockey Club School of Public Health and Primary Care
- School of Pharmacy
- School of Chinese Medicine, HKBU
- Hospital Authority
- Industrial partners

Partners: International



Center for Integrative Medicine, University of Maryland Baltimore, USA



Department of Medicinal Chemistry and Pharmaconopsy, University of Illinois, USA



National Institute of Complementary Medicine, Australia



Complementary and Integrative Medicine University of Duisburg-Essen, Germany

• • Target diseases

- o Common
- Chronic or recurrent in nature
- No effective treatment or marked side effects in conventional Western medicine
- Well accepted CAM treatment with high demand in the public

Integrative Medicine

- **Digestive diseases**: Functional gastrointestinal disorder, Obesity
- Neurological diseases: Dementia, Stroke, Parkinson's disease
- **Musculoskeletal diseases**: Chronic arthritis, Fibromyalgia, Chronic low back pain
- **Oncology**: Supportive care for chemotherapy, pain control
- Psychological disorders: Anxiety, Depression, Insomnia
- **Dermatology and Immunology**: Chronic eczema, Allergic rhinitis
- Cardiovascular and Metabolic diseases: Hypertension and Diabetes mellitus