英国中医药学会

The Association of Traditional Chinese Medicine And Acupuncture UK (ATCM)

ATCM Research Updates

Issue No 29
1st January 2019

Contents

9. Clinical Experience of Chinese Herbal Medicine Ameliorates Dermatologic Events from Epidermal Growth Factor Receptor Inhibitors for Lung Cancer: A Case Series.

1.The Development History, Present Situation and Prospect of Traditional Chinese Medicine in France

Zhu Miansheng; Attali; Ju Liya 2018 , *World Chinese Medicine* , Editorial E-mail ,2018(04)

【Abstract】This article reviews the history of TCM introduced into France and concentrates on the general survey of traditional Chinese medicine in four historical stages of TCM in France. I will summarize the TCM in seven aspects: acupuncture clinical, meridian research and clinical research; classic translation and international standards; traditional Chinese medicine education and test certification; development of Qigong; Chinese medicine research and the Chinese medicine industry; the cooperation with the government and the civilian; the current situation and the prospect of legalization of Chinese medicine. Through the Chinese medicine industry rooting into France and the major changes in the clinical study of acupuncture and moxibustion since 2016 and the opening of the Chinese medicine center to the public in national hospitals, the value and significance of the communication and blending of traditional Chinese medicine with alternative medicine and the mainstream medicine a in France are the added effect of harmony but difference; the forced effect of By Other's Fault, Wise Men Correct Their Own; the win-win effect of the mirror interaction. In recent years, the folk institutions engaged in traditional Chinese medicine education and practice have shown that the comprehensive recognition of traditional Chinese medicine in France is only a matter of time。

2. The research progress on classical traditional Chinese medicine for osteoporosis

LI Xiangyu;JIANG Jingting LI Jianguo et al. 2018. *Chinese Journal of Osteoporosis* . 2018 (02)

【Abstract】 Osteoporosis (osteoporosis, OP) is a metabolic bone disease with reduced bone mass, microscopic structural damage of the bone, increased brittleness of the bone and increased fracture risk. With the increase of OP incidence in recent years, the research on its prevention and treatment has become one of the hot topics in modern medicine. A large number of studies have shown that traditional Chinese medicine can improve the bone mineral density of osteoporosis patients, improve their pain symptom, and has a unique advantage in the prevention and treatment of osteoporosis. In this paper, through using CNKI, Wanfang, VIP and other Chinese literature retrieval system, we summarized research progress on bone measurements, cytokine changes ,gene level and other aspects of osteoporosis treatment using traditional Chinese medicine(including single Traditional Chinese medicine classical compound, Chinese medicine, etc.). The purpose of this study was to find out the existing problems in the treatment of osteoporosis and to give perspective to future research on osteoporosis treatment using TCM, in order to provide new ideas and inspirations for the medical workers and researchers who are engaged in osteoporosis research, so as to better guide the research and clinical work

3. Research progress in treatment of prostate cancer with traditional Chinese medicine

DONG Shi;JIANG Miao;WANG Peipei et al. 2018. *Tianjin Journal of Traditional Chinese Medicine*, 2018(10)

【Abstract】 Through reviewing the literature on prostate cancer research in the field of Chinese medicine published in recent years, this paper reviews and summarizes the research progress of traditional Chinese medicine in the treatment of prostate cancer and makes recommendations. Studies have shown that Chinese medicine combined with western medicine treatment has obvious curative effect on prostate cancer, and various Chinese herbal extracts have inhibitory effects on prostate cancer

cells. Chinese medicine has great potential and space for development in the treatment of prostate cancer.

4.Modern research progress and prospect of traditional Chinese medicine for coronary heart disease

LIAO Jiang-quan; SHI Zai-xiang; DU Jin-hang. 2018. *China Journal of Traditional Chinese Medicine and Pharmacy* , 2018(11). P 4813-4816.

【 Abstract 】 Traditional Chinese medicine(TCM) treating coronary heart disease(CHD) related researches have made progresses and breakthroughs in recent years, including the development and innovation in the TCM theory, proposal for initial treating idea, high quality evidence-based researches, and the utilization of new technologies in TCM syndrome researches. Meanwhile, the ignorance of TCM disease differentiation and syndrome dynamic evolution, the adequate interpretation and systematic validation of research outcome, herbal decoction still being marginal, are the existing problems to be solved. In the future, the academic circles need comprehensively planning and elaboration. By the systematically applying of TCM prevention and treatment, the CHD management can be lifted into next level.

5.Traditional Chinese herbal medicine for vascular dementia

Chan ES, Bautista DT, Zhu Y, You Y, Long JT, Li W, Chen C. 2018 Dec 6;12:CD010284. doi: 10.1002/14651858.CD010284.pub2

Abstract

BACKGROUND:

Traditional Chinese herbal medicine (TCHM) is widely used for treating vascular dementia (VaD) in China. Recent studies of a number of TCHMs have demonstrated in vitro biological activity and therapeutic effects in animals, but the published clinical evidence has not been systematically appraised.

OBJECTIVES:

To evaluate the efficacy and safety of TCHMs listed in either the Chinese Pharmacopoeia (CP) or the Chinese National Essential Drug List (NEDL) that are used to treat VaD. A secondary aim was to identify promising TCHMs for further clinical research.

SEARCH METHODS:

We searched ALOIS, the Cochrane Dementia and Cognitive Improvement Group's Specialised Register (on 14 March 2018) and also several Chinese biomedical databases: the Chinese Biological Medicine Database (January 1979 to May 2015), Wanfang database (January 1998 to May 2015), Chongqing VIP Information Co. Ltd or Weipu (January 1998 to May 2015) and the Chinese National Knowledge Infrastructure (January 1979 to May 2015).

SELECTION CRITERIA:

We included randomised controlled trials (RCTs) of TCHMs compared to placebo, to Western medicine (WM) or to routine therapy for VaD risk factors. Eligible participants were men and women aged 18 years and above, diagnosed with VaD by any of the following four criteria: (1) Diagnostic and Statistical Manual of Mental Disorders (DSM) versions III, III-R, IV, IV-TR; (2) National Institute of Neurological Disorders and Stroke (NINDS-AIREN); (3) International Classification of Diseases 9 or 10; (4) the Hachinski or the Modified Hachinski Ischaemic Score. We required the use of an imaging technique to differentiate VaD from other dementias. We excluded (1) trials with participants diagnosed with mixed dementia or those that did not use an imaging technique to ascertain VaD; (2) trials of NEDL-listed Gingko biloba or Huperzine A as experimental interventions, to avoid duplication of existing Cochrane Reviews; (3) trials using acupuncture alone as the experimental intervention; (4) trials using another CP- or NEDL-listed TCHM (except for Huperzine A and Gingko which are popular in Western practice) as the control intervention; and (5) trials using purely non-pharmacological interventions as the control intervention unless explicitly described as 'routine therapy for VaD risk factors'.

DATA COLLECTION AND ANALYSIS:

We assessed the risks of bias using the Cochrane 'Risk of bias' tool and adapted the Outcome Reporting Bias in Trials (ORBIT) classification system for outcome reporting bias. We assessed TCHM effects on five clinically important outcomes: cognition, global performance, safety, activities of daily living and behaviour and summarised the effects using mean differences for continuous outcomes and risk ratios or risk differences for binary outcomes. We stratified the studies into those that estimated the TCHM versus 'no treatment' effect and those that estimated the TCHM versus the WM effect, with further stratification by the specific TCHM tested or by one of the four modes of action. We pooled using a random-effects model. Due to substantial clinical and design heterogeneity, we did not estimate an 'overall TCHM effect'.

MAIN RESULTS:

We only found studies (47 studies, 3581 participants) for 18 of the 29 eligible TCHMs as defined by our inclusion criteria. All were superiority trials conducted in China between 1997 and 2013, with most employing a two-arm parallel design with sample sizes ranging from 26 to 240 and a median treatment duration of 12 weeks (range: 2 to 24 weeks).We found that reporting and trial methodology were generally poor; in particular, there was a lack of information on randomisation, an absence of blinding of participants and outcome assessors and incomplete reporting of adverse events (AEs). None of the 30 trials published from 2007 onwards adopted the CONSORT recommendations for reporting RCTs of herbal interventions.We found seven TCHMs which each had potentially large benefits in studies estimating the TCHM versus 'no treatment' effect and in studies estimating the TCHM versus the WM effect. Two TCHMs (NaoXinTong and TongXinLuo) were common to both groups. Three of these TCHMs - Nao XinTong, NaoMaiTai and TongXinLuo - had the strongest evidence to justify further research. Two TCHMs (NaoMaiTai and TongXinLuo) had a 5% or more increased risk of AEs compared to the 'no Treatment' control, but the quality of this evidence was poor.

AUTHORS' CONCLUSIONS:

We found moderate- to very low-quality evidence of benefit and harm of TCHMs for VaD. Methodological inadequacies need to be addressed by better conducted and reported trials. We identified NaoMaiTai, NaoXinTong and TongXinLuo as warranting special research priority.

6.A Network Pharmacology Approach to Uncover the Mechanisms of Shen-Qi-Di-Huang Decoction against Diabetic Nephropathy.

Di S, Han L, Wang Q, Liu X, Yang Y, Li F, Zhao L, Tong X. *Evid Based Complement Alternat Med.* 2018 Nov 1;2018:7043402. doi: 10.1155/2018/7043402. eCollection 2018.

S, Han L, Wang Q, Liu X, Yang Y, Li F, Zhao L, Tong X.

Abstract

Shen-Qi-Di-Huang decoction (SQDHD), a well-known herbal formula from China, has been widely used in the treatment of diabetic nephropathy (DN). However, the pharmacological mechanisms of SQDHD have not been entirely elucidated. At first, we conducted a comprehensive literature search to identify the active constituents of SQDHD, determined their corresponding targets, and obtained known DN targets from several databases. A protein-protein interaction network was then built to explore the complex relations between SQDHD targets and those known to treat DN. Following the topological feature screening of each node in the network, 400 major targets of SQDHD were obtained. The pathway enrichment analysis results acquired from DAVID showed that the significant bioprocesses and pathways include oxidative stress, response to glucose, regulation of blood pressure, regulation of cell proliferation, cytokine-mediated signaling pathway, and the apoptotic signaling pathway. More interestingly, five key targets of SQDHD, named AKT1, AR, CTNNB1, EGFR, and ESR1, were significant in the regulation of the above bioprocesses and pathways. This study partially verified and predicted the pharmacological and molecular mechanisms of SQDHD on DN from a holistic perspective. This has laid the foundation for further experimental research and has expanded the rational application of SQDHD in clinical practice.

7.Development and Application of an UHPLC-MS/MS Method for Comparative Pharmacokinetic Study of Eight Major Bioactive Components from Yin Chen Hao Tang in Normal and Acute Liver Injured Rats.

Evid Based Complement Alternat Med. 2018 Nov 1;2018:3239785. doi: 10.1155/2018/3239785. eCollection 2018.

Wang Y, Xing X, Cao Y, Zhao L, Sun S, Chen Y, Chai Y, Chen S, Zhu Z.

Abstract

Yin Chen Hao Tang (YCHT) is one of the most famous hepatoprotective herbal formulas in China, but its pharmacokinetic investigation in model rats has been rarely conducted. In this study, the hepatic injury model was caused by intraperitoneal injections of carbon tetrachloride (CCl4), and YCHT was orally administered to the model and normal rats. An ultrahigh performance liquid chromatography-tandem mass spectrometry (UHPLC-MS/MS) method was established to analyze the plasma pharmacokinetics of eight major bioactive ingredients from YCHT in both the normal and liver injured rats. The calibration curves presented good linearity ($r > 0.9981$) in the concentration range. The relative standard deviation (RSD%) of inter- and intraday precision was within 9.55%, and the accuracy (RE%) ranged from -10.72% to 2.46%. The extraction recovery, matrix effect, and stability were demonstrated to be within acceptable ranges. The lower limit of detection (LLOD) and lower limit of quantitation (LLOQ) were around 0.1 ng/mL and 0.5 ng/mL, respectively, which were much lower than those in other related researches. Results reveal that there are significant differences in the pharmacokinetics of scoparone, geniposide, rhein, aloe-emodin, physcion, and chrysophanol in hepatic injured rats as compared to those in control except for scopoletin and emodin. Our experimental results provide a meaningful reference for the clinical dosage of YCHT in treating liver disorders, and the improvement of LLOD and LLOQ can also broaden the range of our method's application, which is very suitable for quantitating these eight compounds with low levels.

8.Evaluation of in vitro anti-oxidant and anti-inflammatory activities of Korean and Chinese Lonicera caerulea.

Nutr Res Pract. 2018 Dec; 12(6):486-493. doi: 10.4162/nrp.2018.12.6.486. Epub 2018 Nov 16.

Lee YS, Cho IJ, Kim JW, Lee SK, Ku SK, Lee HJ.

Abstract

BACKGROUND/OBJECTIVES:

The honeysuckle berry (HB) contains ascorbic acid and phenolic components, especially anthocyanins, flavonoids, and low-molecular-weight phenolic acids. In order to examine the potential of HB as a hepatoprotective medicinal food, we evaluated the in vitro anti-oxidant and anti-inflammatory activities of Korean HB (HBK) and Chinese HB (HBC).

MATERIALS/METHODS:

Antioxidant and anti-inflammatory effects of the extracts were examined in HepG2 and RAW 264.7 cells, respectively. The anti-oxidant capacity was determined by DPPH, SOD, CAT, and ARE luciferase activities. The production of nitric oxide (NO) as an inflammatory marker was also evaluated. The Nrf2-mediated mRNA levels of heme oxygenase-1 (HO-1), NAD (P)H dehydrogenase [quinone] 1 (Nqo1), and glutamate-cysteine ligase catalytic subunit (Gclc) were measured. The concentrations of HB extracts used were 3, 10, 30, 100, and 300 μg/mL.

RESULTS:

The radical scavenging activity of all HB extracts increased in a concentration-dependent manner ($P < 0.01$ or $P < 0.05$). SOD ($P < 0.05$) and CAT ($P < 0.01$) activities were increased by treatment with 300 μg/mL of each HB extract, when compared to those in the control. NO production was observed in cells pretreated with 100 or 300 μg/mL of HBC and HBK ($P < 0.01$). Treatment with 300 μg/mL of HBC significantly increased Nqo1 ($P < 0.01$) and Gclc ($P < 0.05$) mRNA levels compared to those in the control. Treatment with 300 μg/mL of HBK ($P < 0.05$) and HBC ($P < 0.01$) also significantly increased the HO-1 mRNA level compared to that in the control.

CONCLUSIONS:

Thus, the Korean and Chinese HBs were found to possess favorable in vitro anti-oxidant and anti-inflammatory activities. Nrf2 and its related anti-oxidant genes were associated with both anti-oxidant and anti-inflammatory activities in HB-treated cells. Further studies are needed to confirm these in vivo effects.

KEYWORDS:

Honeysuckle berry; hepatoprotective effect

PMID: 30515276 PMCID: PMC6277309 DOI: 10.4162/nrp.2018.12.6.486

9Clinical Experience of Chinese Herbal Medicine Ameliorates Dermatologic Events from Epidermal Growth Factor Receptor Inhibitors for Lung Cancer: A Case Series.

Yang ST, Lin YR, Wu M, Chiang JH, Yang PS, Hsia TC, Yen HR

BMC Complement Altern Med. 2018 Nov 29; 18(1):313. doi: 10.1186/s12906-018-2377-4.

Abstract

BACKGROUND:

Tuberculosis (TB) is one of the world's major communicable infectious diseases, and it still imposes a great health burden in developing countries. The development of drug-resistant TB during the treatment increases the treatment complexity, and the long-term pulmonary complications after completing treatment raise the epidemic health burden. This study intended to investigate the utilization of Chinese medicine (CM) for respiratory symptoms by patients with a medical history of TB in Taiwan.

METHODS:

We analysed a cohort of one million individuals who were randomly selected from the National Health Insurance Research Database in Taiwan. The inclusion criteria of patients (n = 7905) with history of TB (ICD-9-CM codes 010-018 and A02) were: (1) TB diagnosed between January 1, 1997 and December 31, 2010 (2) 18 years old or over (3) Clinical records for at least 2 months with complete demographic information (4) Record of treatment with first-line TB medication prescriptions. CM users for conditions other than respiratory discomforts (n = 3980) were excluded. Finally, a total

of 3925 TB patients were categorized as: CM users for respiratory discomforts (n = 2051) and non-CM users (n = 1874).

RESULTS:

Among the 3925 subjects, 2051 (52.25%) were CM users, and 1874 (44.753%) were non-CM users. Female patients and those who were younger (18-39 y/o) and who lived in urbanized areas relatively tended to be CM users ($p < .0001$). Most of the CM users (1944, 94.78%) received Chinese medicines. The most commonly prescribed herbal formulas and single herbs were Xiao-Qing-Long-Tang and Radix Platycodonis (Jie-Geng), respectively. The core pattern of Chinese medicines for TB patients consisted of Ma-Xing-Gan-Shi-Tang, Bulbus Fritillariae Thunbergii (Bei-Mu), Radix Platycodonis (Jie-Geng) and Semen Armeniacae (Xing-Ren).

CONCLUSIONS:

The use of CM is popular among patients with a medical history of TB complicated with long-term respiratory discomforts in Taiwan. Further pharmacological investigations and clinical trials are required.

KEYWORDS:

Chinese medicine; National Health Insurance Research Database; Prescription; Respiratory diseases; Tuberculosis

PMID: 30497462 PMCID: PMC6267063 DOI: 10.1186/s12906-018-2377-4

Happy New Year! 新年快乐! 快乐猪年!