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The Association of Traditional Chinese Medicine and Acupuncture UK

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Contents

Xiaoyao pill for treatment of functional dyspepsia in perimenopausal women with depression

http://www.ncbi.nlm.nih.gov/pubmed/25469046
World J Gastroenterol. 2014 Nov 28;20(44):16739-44.

By Du HG

AIM:
To evaluate the efficacy and safety of the Xiaoyao pill for treatment of functional dyspepsia (FD) associated with perimenopausal depression.

METHODS:
This was a double-blind, randomized, controlled trial including 180 patients with FD accompanied by depression that were divided into two groups of 90. Patients in the treatment group received oral administration of the Xiaoyao pill for soothing the liver and activating the spleen, and patients in the control group received a placebo. This trial included an 8-wk therapy period with a follow-up period of 6 mo. The total efficacy and degree of depression, as assessed by the Hamilton Rating Scale for Depression (HRSD), were evaluated. Plasma levels of motilin and gastrin were measured and a gastric emptying test was conducted in each participant.

RESULTS:
The Xiaoyao pill had a good therapeutic effect and improved the symptoms in patients with perimenopausal FD as assessed by the HRSD score, motilin and gastrin levels, and rate of gastric emptying. The total effective rate of the Xiaoyao pill in the treatment group was significantly superior to that of the placebo in the control group. In the control group, the initial HRSD score was 12.12 ± 2.29 and decreased to 7.14 ± 1.67 after therapy ($P < 0.01$). In the treatment group, the initial HRSD score was 11.44 ± 2.15, which significantly decreased to 6.20 ± 2.08 after therapy ($P < 0.01$). Moreover, the HRSD score in the treatment group was significantly lower than in control group after 8 wk ($P < 0.01$). Motilin and gastrin levels in both groups were significantly increased after the 8-wk therapy ($P < 0.05$). The gastric emptying rate was also improved in both groups after therapy ($P < 0.05$), and the improvement was significantly better in the treatment group compared to the controls ($P < 0.05$). These results confirm the therapeutic effects of the Xiaoyao pill in perimenopausal FD patients and indicate that it is worthy of clinical promotion.

CONCLUSION:
The Xiaoyao pill is effective and safe for the treatment of perimenopausal women with FD associated with depression.

Zuo-Gui and You-Gui pills, two traditional Chinese herbal formulas, downregulated the expression of NogoA, NgR, and RhoA in rats with experimental autoimmune encephalomyelitis

http://www.ncbi.nlm.nih.gov/pubmed/25448504
J Ethnopharmacol. 2014 Oct 16;158PA:102-112.

By Kou S

Abstract

ETHNOPHARMACOLOGICAL RELEVANCE:
Zuo-Gui pills (ZGPs) and You-Gui pills (YGPs) are 2 traditional Chinese herbal formulas used for treating multiple sclerosis (MS) in the clinical setting and have been shown to have neuroprotective effects in experimental autoimmune encephalomyelitis (EAE), an animal model of MS. The aim of this study was to explore the mechanisms underlying the neuroprotective functions of ZGPs and YGPs.

MATERIALS AND METHODS:
Female Lewis rats were randomly divided into normal control, EAE model, 2g/kg ZGP-treated EAE, 3g/kg YGP-treated EAE, and prednisone acetate-treated groups. EAE model was induced by subcutaneous injection of MBP_{68-86} antigen. The neurological function scores were estimated. Histological structures of the brains and spinal cords were observed, and myelinated and axons imaged. NogoA, Nogo receptor (NgR), and RhoA transcript and protein levels were measured by real-time quantitative RT-PCR and western blotting on postimmunization (PI) days 14 (acute stage) and 28 (remission stage).

RESULTS:
ZGPs and YGPs significantly reduced neurological functions scores and abrogated inflammatory infiltrates, demyelination, and axonal damage. Furthermore, treatment with ZGPs and YGPs inhibited NogoA, NgR, and RhoA mRNA and protein expression in rats at both the acute and remission stages. ZGPs exhibited stronger effects on NogoA and RhoA expressions, as well as neurological function, during the acute stage of EAE, while YGPs caused greater reductions in NogoA expression during the remission stage.

CONCLUSIONS:
Our findings suggested that ZGPs and YGPs exerted neuroprotective effects by downregulation of NogoA, NgR, and RhoA pathways, with differences in response times and targets observed between ZGPs and YGPs.

Salvia miltiorrhiza (Danshen) inhibits L-type calcium current and attenuates calcium transient and contractility in rat ventricular myocytes

http://www.ncbi.nlm.nih.gov/pubmed/25446591
J Ethnopharmacol. 2014 Oct 31;158PA:397-403.

By Gao Y

ETHNOPHARMACOLOGICAL RELEVANCE:

Salvia miltiorrhiza (SM, Danshen), a traditional Chinese herbal drug, has been widely used for hundreds of years to treat coronary artery disease.

MATERIALS AND METHODS:
We studied the effects of SM on the L-type Ca^{2+} current (I_{Ca-L}) with whole-cell patch-clamp technique in rat ventricular myocytes, and its influence on Ca^{2+} transient and contractility using video-based edge detection and dual excitation fluorescence photomultiplier systems as well.

RESULTS:
Exposure to SM solution caused a concentration- and voltage-dependent blockade of I_{Ca-L}, and the dose of SM solution (10g/l) decreased the maximal inhibitory effect of 35.2±1.2%. However, SM solution did not significantly change the current-voltage relationship or reversal potential of I_{Ca-L}, nor did it altered the activation and inactivation gating properties of cardiac Ca^{2+} channels. Meanwhile, SM decreased the amplitude of myocyte shortening and the peak value of Ca^{2+} transient with a significant decrease in the time to 90% of the baseline (T_r), but the time to 10% of the peak (T_p) was not dramatically prolonged.

CONCLUSIONS:
The results indicated that SM significantly inhibited L-type Ca^{2+} channels, decreased $[Ca^{2+}]_i$ and contractility in adult rat cardiac myocytes. These findings may be relevant to the cardioprotective efficacy of SM.

Effect of rat medicated serum containing you gui wan on mouse oocyte in vitro maturation and subsequent fertilization competence.

http://www.ncbi.nlm.nih.gov/pubmed/25530775
Evid Based Complement Alternat Med. 2014;2014:152010. doi: 10.1155/2014/152010. Epub 2014 Oct 28.
By Jiang XH.

You Gui Wan (YGW) is a classic herbal formula in traditional Chinese medicine (TCM) used for the clinical treatment of infertility. This study was to explore whether YGW has an impact on mouse oocyte maturation in vitro and subsequent fertilization competence. Rat medicated serum containing YGW was prepared by orally administrating YGW. Mouse immature oocytes were cultured with YGW medicated serum and compared to those cultured with or without normal rat serum or follicle-stimulating hormone (FSH). YGW medicated serum significantly increased the percentages of matured oocytes when compared to the groups with or without normal rat serum ($P < 0.01$). Furthermore, YGW medicated serum increased the rate of in vitro fertilization (IVF) when compared to the groups treated with FSH and with or without normal rat serum ($P < 0.001$). YGW medicated serum also had significant effects on the mRNA expressions of PKA, CREB, MAPK, PKC, PKG, and MPF and the concentrations of cAMP, cGMP, and NO in matured oocytes. These results indicate that YGW can promote mouse oocyte maturation and IVF in vitro. Signaling pathways, such as the cAMP/PKA/MAPK, the PKC-MAPK, and the NO-cGMP-PKG pathway, which are similar to those induced by FSH, may be responsible for this action.

Complementary and alternative medicine for cancer patients: results of the EPAAC survey on integrative oncology centres in Europe

http://www.ncbi.nlm.nih.gov/pubmed/25471177
Support Care Cancer. 2014 Dec 4.
By Rossi E

BACKGROUND:
The Region of Tuscany Health Department was included as an associated member in WP7 "Healthcare" of the European Partnership for Action Against Cancer (EPAAC), initiated by the EU Commission in 2009.

AIMS:
The principal aim was to map centres across Europe prioritizing those that provide public health services and operating within the national health system in integrative oncology (IO).

METHODS:
A cross-sectional descriptive survey design was used to collect data. A questionnaire was elaborated concerning integrative oncology therapies to be administered to all the national health system oncology centres or hospitals in each European country. These institutes were identified by convenience sampling, searching on oncology websites and forums. The official websites of these structures were analysed to obtain more information about their activities and contacts.

RESULTS:
Information was received from 123 (52.1 %) out of the 236 centres contacted until 31 December 2013. Forty-seven out of 99 responding centres meeting inclusion criteria (47.5 %) provided integrative oncology treatments, 24 from Italy and 23 from other European countries. The number of patients seen per year was on average 301.2 ± 337. Among the centres providing these kinds of therapies, 33 (70.2 %) use fixed protocols and 35 (74.5 %) use systems for the evaluation of results. Thirty-two centres (68.1 %) had research in progress or carried out until the deadline of the survey. The complementary and alternative medicines (CAMs) more frequently provided to cancer patients were acupuncture 26 (55.3 %), homeopathy 19 (40.4 %), herbal medicine 18 (38.3 %) and traditional Chinese medicine 17 (36.2 %); anthroposophic medicine 10 (21.3 %); homotoxicology 6 (12.8 %); and other therapies 30 (63.8 %). Treatments are mainly directed to reduce adverse reactions to chemo-radiotherapy (23.9 %), in particular nausea and vomiting (13.4 %) and leucopenia (5 %). The CAMs were also used to reduce pain and fatigue (10.9 %), to reduce side effects of iatrogenic menopause (8.8 %) and to improve anxiety and depression (5.9 %), gastrointestinal disorders (5 %), sleep disturbances and neuropathy (3.8 %).

CONCLUSIONS:
Mapping of the centres across Europe is an essential step in the process of creating a European network of centres, experts and professionals constantly engaged in the field of integrative oncology, in order to increase, share and disseminate the knowledge in this field and provide evidence-based practice.

Integrative medicine for subacute stroke rehabilitation: a study protocol for a multicentre, randomised, controlled trial.

http://www.ncbi.nlm.nih.gov/pubmed/25475247#
BMJ Open. 2014 Dec 4;4(12):e007080. doi: 10.1136/bmjopen-2014-007080.
By Fang J

INTRODUCTION:
Many patients with stroke receive integrative medicine in China, which includes the basic treatment of Western medicine and routine rehabilitation, in conjunction with acupuncture and Chinese medicine. The question of whether integrative medicine is efficacious for stroke rehabilitation is still controversial and very little research currently exists on the integrated approach for this condition. Consequently, we will conduct a multicentre, randomised, controlled, assessor-blinded clinical trial to assess the effectiveness of integrative medicine on stroke rehabilitation.

METHODS AND ANALYSIS:
360 participants recruited from three large Chinese medical hospitals in Zhejiang Province will be randomly divided into the integrative medicine rehabilitation (IMR) group and the conventional rehabilitation (CR) group in a 1:1 ratio. Participants in the IMR group will receive acupuncture and Chinese herbs in addition to basic Western medicine and rehabilitation treatment. The CR group will not receive acupuncture and Chinese herbal medicine. The assessment data will be collected at baseline, 4 and 8 weeks postrandomisation, and then at 12 weeks' follow-up. The primary outcome is measured by the Modified Barthel Index. The secondary outcomes are the National Institutes of Health Stroke Scale (NIHSS), Fugl-Meyer Assessment, the mini-mental state examination and Montreal Cognitive, Hamilton's Depression Scale and Self-Rating Depression Scale, and the incidence of adverse events.

ETHICS AND DISSEMINATION:
Ethical approval was obtained from ethics committees of three hospitals. The results will be disseminated in a peer-reviewed journal and presented at international congresses. The results will also be disseminated to patients by telephone, during follow-up calls inquiring on patient's post-study health status.

Meta-analysis of the effect and safety of berberine in the treatment of type 2 diabetes mellitus, hyperlipemia and hypertension

http://www.ncbi.nlm.nih.gov/pubmed/25498346
J Ethnopharmacol. 2014 Dec 10. pii: S0378-8741(14)00871-X.
By, Lan J.

Abstract

ETHNOPHARMACOLOGICAL RELEVANCE:
Berberine, extracted from Coptis Root and Phellodendron Chinese, has been frequently used for the adjuvant treatment of type 2 diabetes mellitus, hyperlipidemia, and hypertension in China. Safety and efficacy studies in terms of evidence-based medical practice have become more prevalent in application to Chinese Herbal Medicine. It is necessary to assess the efficacy and safety of berberine in the treatment of type 2 diabetes mellitus, hyperlipidemia and hypertension by conducting a systematic review and meta-analysis of available clinical data.

MATERIALS AND METHODS:

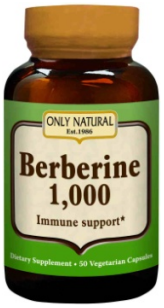
We searched the English databases PubMed, ScienceDirect, Cochrane library, EMbase, etc., and Chinesedatabases including China biomedical literature database (CBM), Chinese Technology Journal Full-text Database, Chinese journal full text database (CNKI), and Wanfang digital periodical full text database. Relevant studies were selected based on the inclusion and exclusion criteria. Meta-analysis was performed with RevMan5.0 software after data extraction and the quality of studies assessment.

RESULTS:

Twenty-seven randomized controlled clinical trials were included with 2569 patients. There are seven subgroups in our meta-analysis: berberine versus placebo or berberine with intensive lifestyle intervention versus intensive lifestyle intervention alone; berberine combined with oral hypoglycemic versus hypoglycemic alone; berberine versus oral hypoglycemic; berberine combined with oral lipid lowering drugs versus lipid lowering drugs alone; berberine versus oral lipid lowering drugs; berberine combined with oral hypotensor versus hypotensive medications; berberine versus oral hypotensive medications. In the treatment of type 2 diabetes mellitus, we found that berberine with lifestyle intervention tended to lower the level of FPG, PPG and HbA_{1c} than lifestyle intervention alone or placebo; the same as berberine combined with oral hypoglycaemics to the same hypoglycaemics; but there was no statistical significance between berberine and oral hypoglycaemics. As for the treatment of hyperlipidemia, berberine with lifestyle intervention was better than lifestyle intervention, berberine with oral lipid lowering drugs was better than lipid lowering drugs alone in reducing the level of TC and LDL-C, and raising the level of HDL-C. In the comparative study between berberine and oral lipid lowering drugs, there was no statistical significance in reducing the level of TC and LDL-C, but berberine shows better effect in lowering the level of TG and raising the level of HDL-C. In the treatment of hypertension, berberine with lifestyle intervention tended to lower the level of blood pressure more than the lifestyle intervention alone or placebo did; The same occurred when berberine combined with oral hypotensor was compared to the same hypotensor. Notably, no serious adverse reaction was reported in the 27 experiments.

CONCLUSION:

This study indicates that berberine has comparable therapeutic effect on type 2 DM, hyperlipidemia and hypertension with no serious side effect. Considering the relatively low cost compared with other first-line medicine and treatment, berberine might be a good alternative for low socioeconomic status patients to treat type 2 DM, hyperlipidemia, hypertension over long time period. Due to overall limited quality of the included studies, the therapeutic benefit of berberine can be substantiated to a limited degree. Better methodological quality, large controlled trials using standardized preparation are expected to further quantify the therapeutic effect of berberine.



Berberine exhibits antitumor effects in human ovarian cancer cells

http://www.ncbi.nlm.nih.gov/pubmed/25544381
Anticancer Agents Med Chem. 2014 Dec 26.
By Lin P.

Abstract

Background: Berberine is an extract of a traditional Chinese herbal medicine and has been shown to inhibit the proliferation and induce apoptosis in a wide variety of tumour cells. However, the effects of Berberine in ovarian cancer cells are unknown. Aims: Investigate the potential anti-cancer effects of Berberine in human ovarian cancer cells.

Methods: Cell proliferation was evaluated by a MTT assay. Apoptosis was determined using Annexin V/PI staining and transmission electron microscopy. The methylation status of the hMLH1 promoter CpG islands were analysed using methylation-specific polymerase chain reaction (MSP). mRNA expression of BCL-2, BAX, survivin and HMLH1 were quantified by real-time fluorescence quantitative RT-PCR.

Results: Berberine significantly inhibited the proliferation of SKOV3 cells in a dose- and time-dependent manner. It also dose-dependently induced apoptosis, possibly through down-regulating the anti-apoptotic genes BCL-2 and survivin, and up-regulating the pro-apoptotic gene BAX. When combined with cisplatin, Berberine showed a strong synergistic anticancer effect against ovarian cancer cells. In addition, Berberine was found to restore the demethylation status of the hMLH1 promoter and up-regulate the mRNA expression of hMLH1.

Conclusion: Berberine possesses antitumor effect via inhibition of cell proliferation and induction of apoptosis in ovarian cancer cells. Berberine could synergistically enhance the cell killing effect of other antitumor agents such as cisplatin. Further studies are essential to explore the therapeutic potential of Berberine either alone or in combination with other anticancer agents in patients with ovarian cancer.

Cordyceps sinensis (a traditional Chinese medicine) for treating chronic kidney disease.

http://www.ncbi.nlm.nih.gov/pubmed/25519252
Cochrane Database Syst Rev. 2014 Dec 18;12:CD008353
By Zhang HW

ACKGROUND:

Cordyceps sinensis (Cordyceps, Dong Chong Xia Cao), a herbal medicine also known as Chinese caterpillar fungus, is one of the most commonly used ingredients in traditional Chinese medicine for the treatment of people with chronic kidney disease (CKD).

OBJECTIVES:
This review aimed to evaluate the therapeutic effects and potential adverse effects of Cordyceps sinensis for the treatment of people with CKD.

SEARCH METHODS:
We searched the Cochrane Renal Group's Specialised Register to 14 April 2014 through contact with the Trials' Search Co-ordinator using search terms relevant to this review. We also searched CINAHL, AMED, Current Controlled Trials, OpenSIGLE, and Chinesedatabases including CBM, CMCC, TCMLARS, Chinese Dissertation Database, CMAC and Index to Chinese Periodical Literature.

SELECTION CRITERIA:
Randomised and quasi-randomised trials comparing Cordyceps or its products with placebo, no treatment, or conventional treatment were considered for inclusion in the review.

DATA COLLECTION AND ANALYSIS:
Two authors independently assessed data quality and extracted data. Statistical analyses were

performed using the random-effects model and the results expressed as risk ratio (RR) for dichotomous outcomes or mean difference (MD) for continuous data with 95% confidence intervals (CI).

MAIN RESULTS:

We included 22 studies that involved 1746 participants. Among people with CKD who were not receiving dialysis, Cordyceps preparations were found to significantly decrease serum creatinine (14 studies, 987 participants): MD -60.76 μmol/L, 95% CI -85.82 to -35.71); increase creatinine clearance (6 studies, 362 participants): MD 9.22 mL/min, 95% CI 3.10 to 15.34) and reduce 24 hour proteinuria (4 studies, 211 participants: MD -0.15 g/24 h, 95% CI -0.24 to -0.05). However, suboptimal reporting and flawed methodological approaches meant that risk of bias was assessed as high in four studies and unclear in 18 studies, and hence, these results need to be interpreted with caution.

AUTHORS' CONCLUSIONS:
We found that Cordyceps preparation, as an adjuvant therapy to conventional medicine, showed potential promise to decrease serum creatinine, increase creatine clearance, reduce proteinuria and alleviate CKD-associated complications, such as increased haemoglobin and serum albumin. However, definitive conclusions could not be made because of the low quality of evidence.

Comparative pharmacokinetics of three monoester-diterpenoid alkaloids after oral administration of Acontium carmichaeli extract and its compatibility with other herbal medicines in Sini Decoction to rats.

http://www.ncbi.nlm.nih.gov/pubmed/25516169
Biomed Chromatogr. 2014 Dec 16. doi: 10.1002/bmc.3394.
By Zhang H

Abstract

Sini decoction (SND) is an important traditional Chinese multiherbal formula, which is widely used to treat cardiovascular disease. Acontium carmichaeli (AC) is a leading herb in SND, whose main components are monoester-diterpenoid alkaloids (MDAs). The aim of this study is to compare the pharmacokinetics of three MDAs in rat plasma after oral administration of AC extract and its compatibility with other herbal medicines in SND. A sensitive, accurate and specific LC-MS/MS method was developed to determine the contents of three MDAs in rat plasma. Male Sprague-Dawley rats were randomly assigned to four groups: AC, AC + ZO, AC + GU and SND groups. There were significant differences in the pharmacokinetic parameters (C_{max} , $T_{max,}$ $t_{1/2}$, $AUC_{(0-24)}$, MRT and CL). Compared with the AC group, C_{max} , $AUC_{(0-24)}$ and CL of three MDAs increased and $t_{1/2}$decreased in AC + ZO, AC + GU and SND groups. Little changed in the AC + GU group in comparison with AC + ZO group, which indicated that other ingredients in ZO may promote the absorption rate and accelerate excretion rate of MDAs. The results could be helpful for revealing the compatibility mechanism of Chinese multiherbal medicine and providing clinical medication guidance on AC and its compatibility with other herbal medicines in SND.

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Research committee of ATCM wish all ATCM members:

Happy new year!

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