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The Association of Traditional Chinese Medicine and Acupuncture UK

TCM Research Updates

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Global performance of traditional Chinese medicine over three decades

<http://link.springer.com/article/10.1007%2Fs11192-011-0521-8?LI=true>

Scientometrics March 2012, 90 (3); 945-958. by Jun-Ying Fu

Traditional Chinese medicine (TCM), which is divided into three subfields, including Chinese medicine, Chinese herb and acupuncture, attracts increasing attentions due to its challenging and significant medical values. This study employs bibliometric analysis to examine the profile of publication activity in TCM field as well as its subfields. The data are retrieved from the Science Citation Index Expanded database during 1980–2009, and 16,536 papers are identified for analysis. Generally speaking, proportions of papers in subfield of acupuncture decreased dramatically, while the proportions of papers of Chinese medicine and Chinese herb rose increasingly. This study finds that East Asia has

the largest number of TCM papers, followed by North America and Europe. Furthermore, while China is ranked first in terms of the amount of TCM publications, USA gains the highest percentage of citations. As for regional specialty, mainly, scholars in East Asia publish intensively in Chinese medicine, while most of the scholars in North America and Europe probe into the study of acupuncture. In the latest two decades, China took the first place over Japan in subfields of both Chinese medicine and Chinese herb, while the US has always kept the largest share in acupuncture with a marked upward trend. Regarding the top-ranked TCM institution,

Chinese Academy of Sciences located in China, is ranked first in the subfields of Chinese medicine and Chinese herb as well. As for Kyung Hee University, which is located in South Korea,

is ranked first in the number of acupuncture papers and Harvard University is ranked first in number of acupuncture citations.

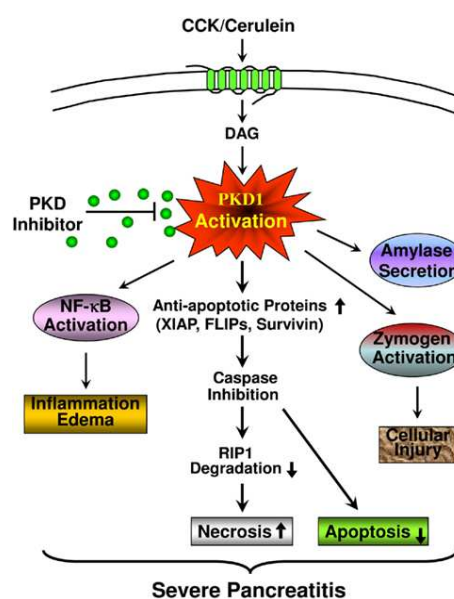
The Chinese herb isolate isorhapontigenin induces apoptosis in human cancer cells by downregulating overexpression of antiapoptotic protein XIAP

<http://www.jbc.org/content/early/2012/08/15/jbc.M112.389494.short>

J. Biol. Chem. 2012 287: 35234-35243. by Yong Fang, Yonghui Yu, Qi Hou

Although Chinese herb *Gnetum Cleistostachyum* has been used as a remedy for cancers for hundred years, the active compounds and molecular mechanisms underlying its anti-cancer activity have not been explored. Recently a new derivative of stilbene compound, Isorhapontigenin (ISO), was isolated from this Chinese herb. In the present study, we examined the potential of ISO in anti-cancer activity and the mechanisms involved in human cancer cell lines. We found that ISO exhibited significant inhibitory effects on human bladder cancer cell growth that was accompanied by marked apoptotic induction as well as downregulation of X-linked inhibitor of apoptosis protein (XIAP). Further studies have shown that ISO downregulation of XIAP protein expression was only observed in endogenous XIAP, but not in constitutionally exogenously expressed XIAP in the same cells, excluding the possibility of ISO regulating XIAP expression at the level of protein degradation. We also identified that ISO downregulated XIAP gene transcription via inhibition of Sp1 transactivation. There was no significant effect of ISO on the apoptosis and colony formation of cells transfected with exogenous HA-tagged XIAP. Collectively, current studies, for the first time to the best of our knowledge, identify ISO as a major active compound for the anti-cancer activity of *Gnetum*

Cleistostachyum by downregulation of XIAP expression and induction of apoptosis through specific targeting of Sp1 pathway, and cast new light on the treatment of the cancer patients with XIAP overexpression.



Angelica sinensis: A Chinese herb for brain cancer therapy

http://www.kaiser.com.tw/upload_files/1/news/e-news/Angelica%20sinensis.pdf

BioMedicine 2012, 2 (1); 30 – 35. by Po-Cheng Lin

Herbs are an important aspect of traditional Chinese medicine, as well as a rich source of unique chemicals. Among the medicinal herbs, *Angelica sinensis* is the most popular used in Chinese medicine. The main compounds found in the acetone extract of *Angelica sinensis* (AS-AC) are ferulic acid, ligustilide, brefeldin A, butylidenephthalide, and polysaccharides, the latter with potential therapeutic effect on various human cancers. Based on molecular evidence from in vitro and in vivo studies, we discuss here how butylidenephthalide suppresses tumor cell proliferation and promotes tumor cell apoptosis. The molecular mechanisms involved include butylidenephthalide-stimulated translocation of Nur77 from the nucleus to the cytoplasm, leading to tumor apoptosis. Butylidenephthalide likewise suppresses telomerase activity, resulting in tumor senescence. Finally, a controlled release system

can increase localized butylidenephthalide concentration. Importantly, butylidenephthalide can cross the blood-brain barrier. Current evidence suggests its efficacy against brain tumors and therefore potential clinical applications.



Chinese Herb *Astragalus membranaceus* Enhances Recovery of Hemorrhagic Stroke: Double-Blind, Placebo-Controlled, Randomized Study

<http://www.hindawi.com/journals/ecam/2012/708452/abs/>

Evidence-Based Complementary and Alternative Medicine. Volume 2012, Article ID 708452, 11 pages.

By Chun Chung Chen.

We tested the effect of *Astragalus membranaceus* (AM) on acute hemorrhagic stroke. Seventy-eight patients were randomly assigned to Group A (3 g of AM three times/day for 14 days); or Group B (3 g of placebo herb). A total of 68 patients (Group A 36, Group B 32) completed the trial. The increase of functional independence measure scale score between baseline and week 4 was 24.53 ± 23.40 , and between baseline and week 12

was 34.69 ± 28.89 , in the Group A was greater than 11.97 ± 11.48 and 23.94 ± 14.8 in the Group B (both $P < 0.05$). The increase of Glasgow outcome scale score between baseline and week 12 was 0.75 ± 0.77 in the Group A was greater than 0.41 ± 0.50 in the Group B ($P < 0.05$). The results are preliminary and need a larger study to assess the efficacy of AM after stroke.

Quality of Life and Health Status After Chinese Herb Treatment in Stable Angina Patients

<http://journal.publications.chestnet.org/article.aspx?articleid=1376579>

CHEST Journal. October 2012; 142 (4_MeetingAbstracts): 85A-85A. by Shihan Wan

PURPOSE: To evaluate the long term quality of life and health status in patients with stable angina after Chinese herb (made from Chinese sage and trichosanthes) treatment.

METHODS: We performed a prospective multi-center placebo controlled trial to evaluate the long term quality of life after Chinese herb treatment. The Chinese herb are made from Chinese sage and trichosanthes. All the patients got standardized therapy included Aspirin, simvastatin and isosorbide dinitrate according to the guideline for the management of stable angina. On the top of these standardized treatments, 66 patients got Chinese herb treatment and the other half got placebo. All patients were followed up for one year. The primary outcome was the change of SF-36 and Seattle Angina Questionnaire (SAQ).

RESULTS: A total of 132 patients from four participated centers were enrolled in the study from 2008 to 2009. No significant differences were observed in the baseline characteristics and comorbidities between two groups. The mean age is 61 ± 9 in herb group vs. 62 ± 8 in placebo controls, 74% male versus 72%, hypertension present 50% vs. 61% and hyperlipidemia 32% vs. 30%, respectively. The score of short form-36

(SF-36) increased significantly from 58 ± 10 to 77 ± 15 ($P<0.01$) in herb treatment group but no significant increase in control group from 58 ± 11 to 67 ± 12 ($p=0.09$). The SAQ score increased significantly after one year treatment in both groups. While the increase of SAQ is significantly higher in herb treatment group (35 ± 15) when compared to the placebo controls (15 ± 10).

CONCLUSIONS: The Chinese herb treatment can significantly improve the quality of life in the stable angina patients when compared to placebo controls as assessed by SF-36 and SAQ.

CLINICAL IMPLICATIONS: This trial indicates that integrated therapy included both Chinese Herb and standardized western medicine can improve one year health status of stable angina patients. The nature herb should be considered as an important adjunct therapy for stable angina patients.



Chinese sage
石见穿



Trichosanthes
天花粉

Antibacterial and Anti-inflammatory Activity of Traditional Chinese Herb Pairs, *Angelica sinensis* and *Sophora flavescens*

<http://link.springer.com/article/10.1007%2Fs10753-011-9393-6?LI=true>

Inflammation. June 2012, 35 (3); 913-919. by Chunchao Han.

The purpose of the present study was to investigate the antibacterial and anti-inflammatory activity of *Angelica sinensis* extract (AE), *Sophora flavescens* extract (SE), and herb pair *A. sinensis* and *S. flavescens* extract (HPE). Endotoxin-induced uveitis (EIU) was induced in rats by a footpad injection of lipopolysaccharide. The anti-inflammatory potential of AE, SE, and HPE in the regulation of nuclear factor kappa B (NF- κ B), maleic dialdehyde (MDA), polymorphonuclear cells (PMN), interleukin-1 β (IL-1 β), inducible nitric oxide synthase (iNOS) and tumor necrosis factor- α (TNF- α), adhesion molecule (ICAM-1), and cyclooxygenase-2

(COX-2) was determined by ELISA and immunohistochemistry. HPE showed strong antibacterial activity at all tested concentrations (1.25, 2.5, and 5 μ g/ml) to *Escherichia coli*, *Staphylococcus aureus*, and *Shigella* Castellani and Chalmers. HPE significantly inhibited EIU-induced upregulation of NF- κ B activation and the production of IL-1 β , TNF- α , iNOS, ICAM-1, and COX-2. Moreover, HPE suppressed MDA and infiltration of PMN. The study supports the hypothesis that the anti-pimple and anti-eczema activities of Dangguikushen compound recipe are attributed to herb pairs, *A. sinensis* and *S. flavescens*, used in combination.



Angelica sinensis
当归



Sophora flavescens
苦参



Compatibility art of traditional Chinese medicine: From the perspective of herb pairs

<http://www.sciencedirect.com/science/article/pii/S0378874112005028>

Journal of Ethnopharmacology 2012, 143 (2): 412-423. by Shengpeng Wang.

Ethnopharmacological relevance

Over the past decades, research of traditional Chinese medicine (TCM) mainly focused on developing potential candidates from Chinese medicinal herbs, while the wisdom of applying these traditional herbs has not been paid as much attention as it deserves. As is well-known, multi-herb therapy is one of the most important characteristics of TCM, but the modernization drive of this conventional wisdom has faced many obstacles due to its unimaginable complexity. Herb pairs, the most fundamental and the simplest form of multi-herb formulae, are a centralized representative of Chinese herbal compatibility. In light of their simplicity and the basic characteristics of complex formulae, herb pairs are of great importance in the studies of herb compatibility.

Materials and methods

A systematic search of herb pair related research was carried out using multiple online literature

databases, books and monographs published in the past 20 years.

Results

A comprehensive introduction to the compatibility of TCM, the position of herb pairs in TCM and the progresses of several famous herb pairs were provided in this review. Furthermore, the clinical study and the future research trends of herb pairs were also discussed.

Conclusions

Herb pairs have played, and may continue to play a key role in full investigation of general herb compatibility for their indispensable position in TCM. Much more research is needed for the standardization, safety evaluation, and mechanism exploration of herb pairs.

Research Committee wish all of the ATCM members

Happy New Year! & 春节愉快!