2501. Plant-derived drugs acting on cellular Ca2+ mobilization in vascular smooth muscle: tetramethylpyrazine and tetrandrine

By Kwan, Chiu Yin
From Stem Cells (Miamisburg, OH, United States) (1994), 12(1), 64-7. Language: English, Database: CAPLUS, DOI:10.1002/stem.5530120111

A review, with 22 refs., discussing the pharmacol. profile of 2 Chinese traditional medicinal plants and their components, including tetramethylpyrazine and tetrandrine. Studies of the vasodilator and antihypertensive effects of these drugs on the regulation of cytosolic Ca2+ in vascular smooth muscle are consistent with the hypothesis of Ca2+ dysfunction as an important etiol. factor in the pathogenesis of hypertension.

~32 Citings

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2502. Highlights on the studies of anticancer drugs derived from plants in China

By Han, Rui
From Stem Cells (Miamisburg, OH, United States) (1994), 12(1), 53-63. Language: English, Database: CAPLUS, DOI:10.1002/stem.5530120110

A review with 25 refs. Guided by the experience of traditional Chinese medicine, several new drugs found are described. Indirubin from Indigofera tinctoria is useful for the treatment of chronic myelocytic leukemia.

~79 Citings

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2503. Quality assessment of the traditional Chinese medicine by chemical pattern recognition

By Luo, X.; Bi, K. S.; Wang, X.; Zhou, L.; Cheng, G.; Qiao, Y. J.; Wang, A. M.

A review with 15 refs. on the use of chem. pattern recognition in the assessment of the quality of traditional Chinese Medicines with respect to their chem. constituents.

~3 Citings

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2504. Natural products and biological activities of the Chinese medicinal fungus Ganoderma lucidum

By Shiao, Ming Shi; Lee, Kuan Rong; Lin, Lee Julian; Wang, Cheng Teh
From ACS Symposium Series (1994), 547(Food Phytochemicals for Cancer Prevention II), 342-54. Language: English, Database: CAPLUS

A review with 50 refs. G. lucidum, a fungus (Polyporaceae) used in traditional Chinese medicine, has attracted great attention recently. It produces polysaccharides with antitumor and hypoglycemic activities and many highly oxygenated lanostanoid triterpenes including multiple pairs of C-3 stereoisomers and C-3/C-15 positional isomers. Sepn. by reversed-phase HPLC and 13C-NMR correlation of stereochem. for these triterpenes are described.

~79 Citings

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2505. Levisticum officinale (garden lovage): micropropagation and the production of essential oils

By Zhang, S. Y.; Cheng, K. C.
From Biotechnology in Agriculture and Forestry (1993), 24(Medicinal and Aromatic Plants V), 229-41. Language: English, Database: CAPLUS

A review with 18 refs. Garden lovage has long been cultivated in Europe as a domestic remedy. It was introduced in China and has been taken over in traditional Chinese medicine. Calli were induced from young stems and petioles, plantlets were produced via somatic embryogenesis and essential oil prodn. in calli was started. This method could accelerate the speed of propagation and open up prospects of large-scale prodn. of important medicinal compds. for use in medicine.

~1 Citing
2506. Recent advances in studies of antihyperlipemic and antihyperglycemic compounds from Chinese traditional and herbal medicines

By Zhang, Linghua; Xiao, Peigen

A review with 57 refs. on recent advances concerning the studies of Chinese traditional and herbal medicine with antihyperlipemic and antihyperglycemic properties. Their medicinal plant sources and the mol. structures of the active compds. therein, as well as the results of their pharmacol. and biochem. studies, wherever available, are presented.
~7 Citings

2507. Antineoplastic agents and their analogs from Chinese traditional medicine

By Lee, Kuo Hsiung
From ACS Symposium Series (1993), 534(Human Medicinal Agents from Plants), 170-90. Language: English, Database: CAPLUS

Cytotoxic antitumor agents from Chinese traditional medicines, plant materials, and their semi-synthetic analogs are reviewed with 112 refs. with emphasis on those discovered in the author's lab. The active compds. include sesquiterpene lactones, diterpenes, quassinoids, triterpenes, alkaloids, quinones, diamides, coumarins, flavonoids, lignans, macrolides, polyacetylenes, polyphenols, and styrylpyrones, as well as their derivs. and analogs. The structure-activity relations and mechanism of action studies among these compds. are discussed.
~25 Citings

2508. Pyrolysis gas chromatography and its utilization in identifying traditional Chinese medicines

By Shi, Qingwen; Gu, Jishun; Wang, Lianshui; Meng, Qingzhi

A review with 14 refs.
~0 Citings

2509. Traditional Chinese medicines and new drug development

By Bai, Douglu
From Pure and Applied Chemistry (1993), 65(6), 1103-12. Language: English, Database: CAPLUS, DOI:10.1351/pac199365061103

A review with 34 refs. The recent study of the traditional medicines in China has given us confidence that what was recorded in Chinese ancient medical literature through empirical observations is indeed still coincident with modern chem., pharmacol. and medicine. An antimalarial drug, artemether, and an acetylcholinesterase inhibitor, hyperzine A, are exemplified.
~30 Citings

2510. Anti-complementary polysaccharides

By Gao, Qipin; Jiang, Ruizhi
A review with 27 refs. The complementary system plays an important role in the host defense system. Recent years, some polysaccharides that purified from Chinese traditional medicine showed anti-complementary activity. Most of the polysaccharides consisted with arabinose, galactose and galacturonic acid. The range of their mol. wt. is from 6,000 to 500,000. Their structures are quite complex and most of them are acidic heteroglycans and pectic polysaccharides which possessed rhamnogalacturonan core. The anti-complementary activity of those polysaccharides is related to their whole moieties. Once those moieties were decomposed, their activity would decrease significantly or disappear. All of the polysaccharides can activate the complement system by the classical pathway, and most of them can activate the complement system by alternative pathway also.

~1 Citing

2511. Research progress on anti-oxygen free radical agents
By Ding, Changhai; Chen, Minzhu; Wei, Wei; Xu, Shuyun
A review with 26 refs. on the generation and scavenging of oxygen free radicals. The free radical scavengers include antioxidant enzymes, antioxidants, xanthine oxidase inhibitors, calcium antagonists, metal-chelating agents, leukocyte function inhibitors and traditional Chinese medicines.
~0 Citings

2512. Recent development of determination of micro-amount element selenium in traditional Chinese medicines and natural products
By Zheng, Rongqing; Li, Guangxiu
From Zhongcaoyao (1992), 23(10), 555-7. Language: Chinese, Database: CAPLUS
A review with 32 refs.
~1 Citing

2513. Phytotherapy in China and its prospects
By Zhou, Haijun; Lu, Yunru
A review with 34 refs. on pharmaceutical natural products used in Chinese traditional medicine.
~1 Citing

2514. Pharmacological and clinical studies on cucurbitacins
By Liu, Yingju; Liu, Wenqing
From Zhongcaoyao (1992), 23(11), 605-8. Language: Chinese, Database: CAPLUS
A review with 48 refs. on cucurbitacins which are active components of the traditional Chinese medicine, Tian Gua Di (Cucumis melo fruit peduncle). Cucurbitacins have been shown to have hepatoprotective activity. These compounds are currently used in the treatment of chronic hepatitis and primary liver cancer.
~1 Citing

2515. Forsythia as a medicinal plant
By Klimek, Barbara
A review with 26 refs. Fructus forsythiae has been known to traditional Chinese medicine since ancient times. Now it is listed in the Japanese Pharmacopeia 10th ed. and is used as an antiinflammatory, detoxicant, and diuretic agent. Fruits, bark, and leaves of Forsythia (various species) contain lignans, caffeoyl glycosides of 3,4-dihydroxyphenethyl alcoh., triterpenoids, and rutin.

~0 Citings

2516. Can the clinical pharmacology find effective principles in traditional Chinese medicines
By Honma, Masato; Oka, Kitaro; Niizuma, Tomoyuki
A review with 15 refs. on the detn. of effective principle in Saibokuto: a traditional Chinese medicine contg. Bupleuri radix, Glycyrrhizae radix. Magnoliaceae cortex, and others; by a pharmacol. method together with the high performance liq. chromatog. sepn. of metabolites in urine.

~0 Citings

2517. Advance in study of anticancer constituents of traditional Chinese medicines
By Jing, Shixia; Du, Jianguo; Pan, Hongcheng; Hao, Junfang
A review with 33 refs. The anticancer constituents of traditional Chinese medicines reviewed here include: (1) glycosides (gypenosides, ginsenoside, H-barrigenol saponins, gymnocladus saponin C, etc.); (2) alkaloids (gabunamine, tabernamine, tetrandrine, alstonine, etc.); (3) polysaccharides of fungi, algae and plant origins; (4) org. acids (gambogic acid, glycyrrhetinic acid, biogastrone, etc.); and (5) others (triptonide, agrimoniin, aloclvin, etc.).

~0 Citings

2518. Japanese and Chinese traditional medicines
By Okuda, Takuo
A review with 11 refs. of the antioxidant effect and mechanism of action of Japanese and Chinese traditional medicines.

~4 Citings

2519. Cytokines and Japanese-Chinese herbal medicine
By Morisawa, Seiji
From Kanpo to Men'eki, Arerugi (1990), 3, 188-209. Language: Japanese, Database: CAPLUS
A review with 12 refs. on effects of the traditional Chinese medicines on immune and inflammatory systems. Prodns. of interleukins and interferon-γ by Sho-saiko-to, Juzen-taiho-to, and by ingredients of herbal medicines such as ginseng, bupleurum root, glycyrrhizin, and the crude saponin and non-saponin fractions of ginseng were discussed. The effect of gomicin A, a lignan from schisandra fruit, on acute hepatic disorder was also discussed.

~0 Citings

2520. Western and traditional Chinese medicine disease management programs of chronic heart failure
By Liang Zhaoming; Sheng Xiaogang; Pan Guangming
Chronic heart failure (CHF) is one of the greatest diseases in modern medicine as chronic disease. It costs lots of financial resources to deal with. Western and traditional Chinese medicine Disease management programs (DMP) can notably improve the quality of life and reduce the expenses for CHF. The disease management programs of CHF have achieved kind of success, but the management programs method which is of traditional Chinese medicine (TCM) characteristic idea carry into testing execution in few TCM hospitals only. This article review the necessary of DMP research, advances in research of DMP research, and relationship between management programs method of Western and traditional Chinese medicine and illness state improvement of CHF patients.

2521. Regulatory mechanism of p38MAPK signaling pathway on renal tissue inflammation in chronic kidney disease and interventional effect of traditional Chinese medicine

By Zhao Qing; Wan Yiqiang; Wang Chaolun; Wei Qingxue; Chen Haoli; Meng Xianjie; Yao Jian

The inflammatory reaction of renal tissues and its relevant tissue damages (such as glomerulosclerosis and renal interstitial fibrosis) are important factors for the development of chronic kidney diseases (CKD) to end-state renal diseases. Of them, p38 mitogen-activated protein kinase (MAPK) signaling pathway plays an important role in regulating expression and bioactivity of multiple nuclear transcription factors, impacting synthesis of downstream inflammatory mediators and activating inflammatory cells. Some monomer traditional Chinese medicines and their extracts (such as emodin and berberine) and some traditional Chinese medicine compound prescriptions (such as Yishen Huoxue decoction) can affect inflammatory reaction of renal tissues by regulating p38MAPK signaling pathway, thus improving reduce glomerulus and renal interstitial inflammatory injury.

2522. Effect and mechanism of traditional Chinese medicine and their active constituents in postmenopausal osteoporosis

By Zhao Piwen; Niu Jianzhao; David Yue-Wei Lee; Wang Jifeng; Sun Yanling; Li Yadong

Postmenopausal osteoporosis is one of the commonest systemic bone metabolism diseases among menopausal women, mainly caused by lowering internal estrogen. Although Hormone Replacement Therapy (HRT) is an effective method in clinical practice for years, it shows side-effect in increasing gynecological carcinoma. It has already been proved by clinical tests that multiple traditional Chinese medicine formulas and their monomer ingredients and phytoestrogen-like active constituents contained in traditional Chinese medicines are effective on treating osteoporosis with relatively less side-effects comparing with HRT. They show protective and therapeutic effects by acting on estrogen receptors of targeted tissues and targeted cells and then affecting expressions of bone metabolism-related regulatory proteins and factors in downstream signal conduct paths. Recent studies on estrogen related receptor (ERR) provide new possibilities and pathways for mechanism of traditional Chinese medicine and their active constituents in osteoporosis.

2523. Using of method and result of LUCC study in field of Chinese medicine resources

By Zhang Xiaobo; Guo Lanping; Huang Luqi
The contradiction between the ecological environment, natural resources and the development of social and economic has become increasingly conspicuous. Land resources are the physical basis of Chinese medicine resources and habitat of the medicinal organisms. Meanwhile, land resources are also the bridge and tie between Chinese medicine resources and environment that include society and natural environment. Chinese medicine resources exist in the multiplexed system that constituted by the natural ecological environment and the human social environment. So the sustainable use of Chinese medicine resources includes the Chinese medicine resources itself and the nature environment and society environment that exist in. For the sustainable use of the Chinese medicine resources, it is necessary to study the change of Chinese medicine resources, the change of environment and the relationship between the Chinese medicine resources and environment that exist in. This technology method and result of land use and land cover change study, that can be use in the field of Chinese medicine resources change study. It can help researchers show the history, process, reason, and forecast the trend and result of Chinese medicine resources change.

2524. Establishment of Dao-Di index and its significance in quality control and rational usage of Chinese medicine

By Xiao Xiaohe; Wang Jiabo; Yan Dan; Lv Yang
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2012), 37(11), 1513-6, Language: Chinese, Database: MEDLINE

There exists numerous indices for quality evaluation and control in Chinese medicinal materials. However, most of these indices are qualitative and non-interrelated each other, as well as having little relationship with safety and efficiency. In this article, we first establish a comprehensive evaluating index—Dao-Di index (DDI) based on five factors: relative history of producing areas, ecological suitability of producing areas, commercial specification and grade, golden rate of main components, and biopotency/toxic potency. This DDI can be used to guarantee the quality of Chinese medicinal materials more comprehensively, objectively and effectively, promoting the integration of 'species-quality-property-effect-usage', and it will provide significant references and revelation for taking a world leading role of quality control standard for traditional medicines.

2525. Recent highlights of metabolomics for traditional Chinese medicine

By Zhang Aihua; Sun Hui; Wang Xijun
From Die Pharmazie (2012), 67(8), 667-75, Language: English, Database: MEDLINE

Systems biology is an emerging science of the 21st century and has developed in recent years from a technology-driven enterprise to a new strategic tool in life sciences as well as its method and design resemble those of traditional Chinese medicine (TCM), a holistic approach to health that attempts to bring the body, mind and spirit into harmony. The technology platforms of systems biology, especially metabolomics could provide useful tools for facilitating drug discovery and development of TCM. Metabolomes of medicinal herbs are particularly a valuable natural resource for the evidence-based TCM. Metabolomics adopts a 'top-down' strategy to reflect the function of organisms from terminal symptoms of metabolic network and understand metabolic changes of a complete system caused by interventions in holistic context. Its property consists with the holistic thinking of TCM, may beneficially provide an opportunity to scientifically express the meaning of evidence-based Chinese medicine, will greatly benefit both drug discovery and development for TCM research. Some successful metabolic applications in important TCM field related to drug discovery and development from natural sources aims at raising the potential of metabolomics in reducing the gap between TCM and modern drug discovery demand, highlight the key role of biomarkers for drug discovery and development of traditional oriental medicine.

2526. Development of studies on acupuncture treatment of childhood autism

By Li Yi-Wen; Zhang Rong
From Zhen ci yan jiu = Acupuncture research / [Zhongguo yi xue ke xue yuan Yi xue qing bao yan jiu suo bian ji] (2012), 37(3), 242-6, Language: Chinese, Database: MEDLINE
With the development of autism therapy, acupuncture, an alternative therapy, is becoming popular for autism children. There have been many papers found about the treatment of autism by acupuncture therapy so far. In the present review, the authors briefly introduce the theoretical basis of autism in traditional Chinese medicine and the application history, and sum up the acupoint prescriptions, effectiveness as well as the assessment tools of acupuncture therapy for autism. It is suggested that acupuncture therapy is a relatively effective therapy for autism children. It has positive roles in improving autistic syndromes without any side-effects, especially in improving language development, daily-life self-care, and social communications. The underlying mechanism of this therapy may be explained by acupuncture intervention induced favorable changes of neurochemistry, cerebral blood flow, and cerebral functional activities. Although there are lots of questions to be answered about acupuncture treatment of autism, we hold a positive opinion that this therapy might be a green effective therapy for autistic children in the future.

2527. Understanding the viscera-related theory that the lung and large intestine are exterior-interiorly related

By Ni Jin-xia; Gao Si-Hua
From Journal of traditional Chinese medicine = Chung i tsai chih ying wen pan / sponsored by All-China Association of Traditional Chinese Medicine, Academy of Traditional Chinese Medicine (2012), 32(2), 293-8, Language: English, Database: MEDLINE

Pairing of the viscera and bowels is an important theory, which provides guidance to traditional Chinese medicine (TCM) clinical practice. Investigating this theory has been the focus of research on the basic theory of TCM. Recently, researchers have performed many studies on the theory that the lung and large intestine are exterior-interiorly related, which is a different point of view to that of previous literature, recent clinical studies and experimental studies, and these recent studies have enforced the theoretical connotation of the statement. However, there are problems in some of these studies including recent clinical studies and experimental studies. In the current article, literature on the viscera-related theory of the lung and large intestine are exterior-interiorly related is reviewed from physiological, pathological, and clinical views, and some opinions on the current research status are discussed.

2528. Potential advantages of a combination of Chinese medicine and bone marrow mesenchymal stem cell transplantation for removing blood stasis and stimulating neogenesis during ischemic stroke treatment

By Zhao Yong-hua; Guan Ying; Wu Wei-kang

Combined treatment of ischemic stroke with Chinese medicine and exogenous bone marrow mesenchymal stem cell (BMSC) transplantation may improve the removal of blood stasis and stimulation of neogenesis. Chinese medicines that remove blood stasis not only promote blood circulation but also calm the endopathic wind, remove heat, resolve phlegm, remove toxic substances and strengthen body resistance. The medicinal targeting effect of Chinese medicine can promote the homing of BMSCs, and the synergistic therapeutic effects of drugs can contribute to BMSC differentiation. As such, exogenous BMSC transplantation has potential advantages for neogenesis. Chinese medicines and exogenous BMSCs provide complementary functions for the removal of blood stasis and treatment of Chinese medicine and transplantation of exogenous BMSCs may be particularly suited to ischemic stroke treatment.

2529. Harnessing traditional Chinese medicine to improve cancer therapy: issues for future development

By Pon Doreen; Wang Zhijun; Le Khanh Nguyen Bao; Chow Moses Sing Sum
From Therapeutic delivery (2010), 1(2), 335-44, Language: English, Database: MEDLINE
Traditional Chinese medicine (TCM) has recently yielded a number of chemical compounds with clinically significant anticancer activity. The theory of TCM formulas, however, unlike Western medicine, is based on the interactions of the various Chinese medicinal materials in the body, rather than the activity of a single purified chemical compound. Mechanisms for the possible synergistic anticancer effects of components in TCM formulas have recently been postulated. Advanced research on the clinical effects of TCM formulas, however, has been hampered by inconsistent dosage formulations and unreliable quality control. Scientific challenges in dosage formulation and methods for ensuring quality control of TCM products will be discussed.

2530. Research progresses in effect of traditional Chinese medicines on cytochrome P450 activities from 2000--2011

By Yang Xinbao; Liu Jianxun

The interaction between drugs is mainly guided by cytochrome P450 (CYP) enzyme system. CYP participates in the physical biotransformation of a majority of endobiotic and xenobiotic molecules, especially drugs. It is quite crucial and urgent to investigate drugs effect on CYP before clinical application to ensure the clinical safety and pharmacy validity. In this paper, the progresses on the effect of traditional Chinese medicines on cytochrome P450 activities from 2000-2011 are reviewed.

2531. Rheum officinale (a traditional Chinese medicine) for chronic kidney disease

By Wang Han; Song Hongxian; Yue Jirong; Li Jun; Hou Yan Bin; Deng Jue Lin
From Cochrane database of systematic reviews (Online) (2012), 7CD008000, Language: English, Database: MEDLINE

BACKGROUND: Chronic kidney disease (CKD) is a major public health issue worldwide. Standard therapies to delay CKD progression include dietary protein restriction and administration of angiotensin-converting enzyme inhibitors (ACEi) and angiotensin receptor blockers (ARB) to help control blood pressure and confer additional renoprotective effects. Despite such interventions, CKD incidence and mortality rates continue to increase. Rheum officinale (Da Huang) a medicinal herb used widely in China to treat CKD has been reported to offer a range of pharmacological properties that may delay disease progression. OBJECTIVES: To assess the benefits and harms of Rheum officinale for preventing the progression of CKD. SEARCH METHODS: We searched the Cochrane Renal Group's Specialised Register and CENTRAL (Issue 4, 2011), MEDLINE, EMBASE, the Chinese Biomedicine Database (CBM), China National Knowledge Infrastructure (CNKI), VIP (Chongqing VIP Chinese Science and Technology Periodical Database), and Wanfang Data. We also handsearched reference lists of articles. We applied no restrictions on language of publication. SELECTION CRITERIA: We included randomised controlled trials (RCTs) and quasi-RCTs that assessed the benefits and harms of Rheum officinale for preventing the progression of CKD regardless of dosage, type, maturity, mode of administration, duration of treatment, or storage time before use. DATA COLLECTION AND ANALYSIS: Two authors independently screened titles and abstracts for eligibility, assessed study quality, and extracted data. We expressed results for dichotomous outcomes (need for renal replacement therapy, all-cause mortality, quality of life) as risk ratios (RR) with 95% confidence intervals (CI). Continuous outcomes (glomerular filtration rate (GFR), serum creatinine (Scr), creatinine clearance (CrCl), blood urea nitrogen (BUN)) were expressed as mean differences (MD) with 95% CIs. MAIN RESULTS: We identified nine studies that enrolled 682 participants. None of the studies reported blinding or group allocation methods. Seven studies were judged to be at low risk of incomplete outcome reporting; three studies were judged to be a low risk of selective reporting (protocols were available and/or all outcomes relevant to the this review were reported); and two studies were judged free of other potential biases. Seven studies compared Rheum officinale with no treatment and two made comparisons with captopril, an angiotensin-converting enzyme inhibitor (ACEI). Compared with no treatment, Rheum officinale had a positive effect on SCR (MD -87.49 µmol/L, 95% CI -139.25 to -35.72) and BUN (MD -10.61 mmol/L, 95% CI -19.45 to -2.21). Compared with captopril, a statistically significant difference was not demonstrated in relation to Rheum officinale for any outcome (BUN, CrCl, or patients' capacity to undertake work). No data were available on all-cause mortality or cost of treatment. Only minor adverse events were reported in association with Rheum officinale. AUTHORS' CONCLUSIONS: Currently available evidence concerning the efficacy of Rheum officinale to improve SCR and BUN levels in patients with CKD is both scant and low quality. Although Rheum officinale does not appear to be associated with serious adverse events among patients with CKD, there is no current evidence to support any recommendation for its use.
2532. Progress on chemical pattern recognition in traditional Chinese medicines by multidimensional information of metabolic fingerprinting analysis

By Liu Jiang; Chen Xingfu; Zou Yuanfeng
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2012), 37(8), 1081-8, Language: Chinese, Database: MEDLINE

As a comprehensive, quantifiable identification method based on the chemical composition information of traditional Chinese medicine (TCM), the fingerprint of traditional Chinese medicine has become an internationally recognized effective way to control the quality of natural medicine. Chemical pattern recognition in traditional Chinese medicines is an important breakthrough for the infiltration between fuzzy and pharmaceutical sciences, has been used in the field of quality assessment and control for traditional Chinese medicine. It has solved the problem of comprehensive analysis with multi-dimensional information, and gradually been accepted by more researchers to in-depth study in the further. With the development of modern chemical analysis and computer techniques, there are more technologies were applied to the establishment of fingerprints of traditional Chinese medicine, more chemometric methods have been applied to the data processing of TCM fingerprint, and more quality identification and assessment for TCM to be achieved. And the technology has matured and achieved a lot. In this paper, we make a review for the chemical pattern recognition in traditional Chinese medicines since it be invented, provide a reference for the further research.

2533. Application of new technologies and methods in morphological and microscopic identification of Chinese materia medica

By Long Fang; Li Huijun; Li Ping
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2012), 37(8), 1076-80, Language: Chinese, Database: MEDLINE

Traditional Chinese medicine (TCM) is gaining popularity across the world. The identification of Chinese materia medica (CMM) is vital for assuring safety and efficacy of the products. In this article, new technologies and methods, such as electronic nose, electronic tongue, histochemical localization, fluorescence microscopy, X-ray microscopy in phase contrast, computer image technology, and their application in the morphological identification or microscopic identification of CMM were reviewed.

2534. Application of bioinformatics in molecular authentication of traditional Chinese medicinal materials

By Wong Kalok; Shaw Pangchui
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2012), 37(8), 1072-5, Language: Chinese, Database: MEDLINE

Benefiting from various DNA technologies, DNA markers have now become a popular means for the identification of Chinese medicinal materials. Facing the huge amount of valuable data that has been produced, researchers need to understand the bioinformatics tools for analyzing the obtained DNA information. This paper summarizes the applications of bioinformatics in molecular authentication of Chinese medicinal materials, including checking phylogenetic information of the samples, searching and retrieving DNA sequence data, matching of similarity between the sequences and performing multiple sequence alignment.

2535. Advances in identification of Chinese medicines by NIRS
This review addresses the latest situations and advances of near infrared spectroscopy (NIRS) in which detection of counterfeits and imitations, as well as monitoring origin and quality of Chinese crude drugs and Chinese patent medicines (CCDM) through consultation and summarization of relative literatures. On the one hand, NIRS gradually reveals its advantages and discriminating ability in the ways of nondestructive, rapid, simple, easy, and handy assessment. However NIRS still has some problems in representative samples and models stability for practice of CCDM. In order to keep up with popularization of NIRS in other areas, applications in detection of precious and/or priceless herbals, on-line quality control of valuable herbs, and screening of some chemicals illegally mixed into herbal preparations may be focused preferentially.

~0 Citings
The recent research progress of the utilization of natural drugs for the treatment of liver fibrosis in China and other countries was reviewed. Forty reported remedies were summarized and classified into 3 categories, that is, the single herbal drugs (rhizome, leaf, fruit, bark, peel, flower, whole plants, and oil), traditional Chinese medicine prescriptions and animal drugs. The future directions of the R&D of new natural drugs against liver fibrosis were discussed and some suggestions were provided.

2539. Study on herbal drugs of glycosides in brain
By Song Wei; Wu Weikui; Zhang Haiyan; Yang Ming

Many active ingredients in traditional Chinese medicine exist in the form of glycosides. In recent years, the problem of low bioavailability of Chinese glycosides has caused wide public concern. Glycosides and their metabolites organization distribution directly affect glycosides' curative effect after different ways administration. With reports of glycosides medicine for prevention and treatment of brain diseases increasing, the research of glycosides brain tissue distribution is particularly important. According to reports, glycosides widely distributed in tissues, some glycosides can reach the brain, but some glycosides can not. This research reviews glycosides and their metabolites on the role of brain diseases, the distribution in the brain tissue and recent reports of dosage form's effect to brain. So it can provide a reference for the period of such medicine in the prevention and treatment of brain diseases and drug development.

2540. Thoughts and exploration on studying pharmacological mechanism of traditional Chinese medicine using network biology approach
By Xiang Zheng; Wang Xianqin; Liu Ting; Lv Dan

The mechanism of synergetic effects of multi-components on multi-targets in traditional Chinese medicine (TCM) is one of the bottlenecks for TCM modernization and internationalization. Network biology approach was developed in recent years and provided an important and novel idea to study the pharmacological mechanism of TCM. This review introduced the mathematical basis of network biology, as well as the feasibility and research idea of using network biology to study the pharmacological mechanism of TCM. Network biology was expected to be further used for analyzing the pharmacological mechanism of TCM, guiding drug development of TCM, inheriting and carrying forward the fundamental principle of TCM.

2541. Reinforcing and reducing method of bloodletting therapy
By Zhang Jing-Sha; Chen Bo; Guo Yia

Through review and analysis on description of bloodletting therapy in ancient medical classics, it is found that bloodletting therapy can be classified as two categories of reinforcing and reducing. And the classification is related with many factors such as the quantity of blood, apparatus selected, depth of acupuncture, points selected and physical conditions, etc. Bloodletting therapy is not confined only in excessive syndromes, it is also applied to the treatment of complicated syndrome of excess and deficiency as well as deficiency syndrome with excessive manifestations and deficiency syndrome.

By Zhang Shu; Zeng Xiaoning; He Shaoheng
From Expert opinion on therapeutic patents (2012), 22(7), 715-34, Language: English, Database: MEDLINE

INTRODUCTION: The prevalence of allergic diseases has increased dramatically in recent decades. Therefore, there is a pressing need for the development of effective anti-allergic services worldwide. AREAS COVERED: In previous studies, the authors had analyzed a total of 789 anti-allergic patents granted in China from 1988 to 2008. Herein, they report a further 151 anti-allergic patents issued in China during 2009 - 2011. The current analysis covers the scientific progress in supporting anti-allergic patent applications and granted patent literature, in China, for the last 3 years. EXPERT OPINION: The 151 anti-allergic patents granted from 2009 to 2011 mainly focus on seven types of products. They are: traditional Chinese medicines (TCM), plant extracts, biological products, synthetic compounds, pharmaceutical preparations, medical apparatus and new treatment modalities. Although the overall number of anti-allergic patent applications made between 2009 and 2011 in China is less than that of the USA and Europe, patents on TCM have increased. This suggests that there are demands for modernization of TCMs. Recently, studies of interesting new immunomodulators have also been conducted, and some of these are likely to represent clinically useful advances. In the last 3 years, several patents on these novel potential drugs have also been granted in China. The large number of anti-allergic patents issued in China, in recent times, suggests that the Chinese market is relatively competitive one that will help pharmaceutical companies make proper decisions for their research and development strategies.

~0 Citings

2543. Advance in studies on pathological mechanism of Parkinson's disease and traditional Chinese medicine experiments in prevention and treatment of Parkinson's disease

By Xiong Pei; Chen Xin; Zhang Nan

This article summarizes the current studies on the pathological mechanism of Parkinson's disease as well as the advance in studies traditional Chinese medicine (TCM) experiments in prevention and treatment of PD by TCM, inhibition of oxidative stress, improving mitochondrial energy metabolism, inhibition of neural immune and inflammatory responses, reduction of neural toxicity, inhibition of apoptosis and abnormal protein aggregation.

~0 Citings

2544. Neuroprotective effect of baicalein in patients with Parkinson's disease

By Yu Xin; He Guorong; Du Guanhua

Baicalein, a flavonoid compound extracted from dried roots of traditional Chinese medicine Scutellaria baicalensis, has been widely applied as an antioxidant and anti-inflammatory agent. With continuous studies on its mechanisms, recent findings suggest that baicalein has some effect on neuroprotection and improvement of clinical symptoms in neurodegenerative diseases such as Parkinson's disease. Recent studies showed that its neuroprotective efficacy is closely related to such functions as antiinflammatory, antioxidative stress, protecting chondriosome, inhibiting glutamate neurotoxicity, promoting nerve growth and inhibiting alpha-synuclein protein-aggregate activities. The aim of this article is to summarize the neuroprotective effects of baicalein in Parkinson's disease.

~0 Citings

2545. Overview on quantitative analysis of multi-components by single-marker

By Gao Huimin; Song Zonghua; Wang Zhimin; Qian Zhongzhi; Zhang Qiwei
Based on the previous literatures, the overview on the history and recent advance of the quantitative analysis of multi-components by single-marker (QAMS) was summarized. The key questions of QAMS were also highlighted. It could be considered as a feasible method for the quality control of Traditional Chinese Medicines.

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2546. The genus Commiphora: a review of its traditional uses, phytochemistry and pharmacology
By Shen Tao; Li Guo-Hui; Wang Xiao-Ning; Lou Hong-Xiang

ETHNOPHARMACOLOGICAL RELEVANCE: The resinous exudates of the Commiphora species, known as 'myrrh', are used in traditional Chinese medicine for the treatment of trauma, arthritis, fractures and diseases caused by blood stagnation. Myrrh has also been used in the Ayurvedic medical system because of its therapeutic effects against inflammatory diseases, coronary artery diseases, gynecological disease, obesity, etc. AIM OF THE REVIEW: Based on a comprehensive review of traditional uses, phytochemistry, pharmacological and toxicological data on the genus Commiphora, opportunities for the future research and development as well as the genus' therapeutic potential are analyzed. METHODS: Information on the Commiphora species was collected via electronic search (using Pubmed, SciFinder, Scirus, Google Scholar and Web of Science) and a library search for articles published in peer-reviewed journals. Furthermore, information also was obtained from some local books on ethnopharmacology. This paper covers the literature, primarily pharmacological, from 2000 to the end of December 2011. RESULTS: The resinous exudates from the bark of plants of the genus Commiphora are important indigenous medicines, and have a long medicinal application for arthritis, hyperlipidemia, pain, wounds, fractures, blood stagnation, in Ayurvedic medicine, traditional Chinese medicine and other indigenous medical systems. Phytochemical investigation of this genus has resulted in identification of more than 300 secondary metabolites. The isolated metabolites and crude extract have exhibited a wide of in vitro and in vivo pharmacological effects, including antiproliferative, antioxidant, anti-inflammatory and antimicrobial. The bioactive steroids guggulsterones have attracted most attention for their potent hypolipidemic effect targeting farnesoid X receptor, as well as their potent inhibitory effects on tumor cells and anti-inflammatory efficiency. CONCLUSIONS: The resins of Commiphora species have emerged as a good source of the traditional medicines for the treatment of inflammation, arthritis, obesity, microbial infection, wound, pain, fractures, tumor and gastrointestinal diseases. The resin of C. mukul in India and that of C. molmol in Egypt have been developed as anti-hyperlipidemia and antischistosomal agents. Pharmacological results have validated the use of this genus in the traditional medicines. Some bioassays are difficult to reproduce because the plant materials used have not been well identified, therefore analytical protocol and standardization of extracts should be established prior to biological evaluation. Stem, bark and leaf of this genus should receive more attention. Expansion of research materials would provide more opportunities for the discovery of new bioactive principles from the genus Commiphora.

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2547. Systematic review of randomized controlled trials of traditional Chinese medicine treatment of non-acute bronchial asthma complicated by gastroesophageal reflux
By Zhao Yu-Hao; Liu Zhao-Ian; Li Lan-Hua; Jiang Sheng-Hua; Shi Cheng-He
From Journal of traditional Chinese medicine = Chung i tsa chih ying wen pan / sponsored by All-China Association of Traditional Chinese Medicine, Academy of Traditional Chinese Medicine (2012), 32(1), 12-8, Language: English, Database: MEDLINE
OBJECTIVE: To assess the effectiveness and safety of Traditional Chinese Medicine (TCM) treatment of non-acute bronchial asthma complicated by gastroesophageal reflux. METHODS: We searched databases from MEDLINE, Cochrane Library, CNKI, VIP, CBM, Wanfang Data, and TCM Database Systems. All randomized, controlled trials (RCTs) of TCM treatment of non-acute asthma complicated by gastroesophageal reflux were included. Data were independently collected by two reviewers. The standards for assessing quality described in the Cochrane Handbook for Systematic Reviews of Interventions were used to evaluate articles. Meta-analyses were conducted using RevMan 5.0.17 software. Heterogeneity was assessed, and a corresponding effects model was used to merge and analyze results. Indexes used to evaluate curative effects were: clinical efficacy, symptom scores, pulmonary function values, and adverse incidents. Effectiveness was indicated using risk ratio (RR) or mean difference (MD), and 95% confidence intervals (CIs) were calculated. RESULTS: Six RCTs were included, involving 304 patients with non-acute asthma complicated by gastroesophageal reflux. The treatment groups received Chinese drugs alone or TCM combined with standard Western medical treatment, and the control groups received standard Western medical treatment alone. Standard Western medical treatment included anti-inflammatory drugs and bronchodilators for asthma, and drugs to promote gastric peristalsis and inhibit gastric acid production for gastroesophageal reflux. Methodological quality was low in all six RCTs. Two RCTs showed that clinical efficacy was higher in the treatment group than in the control group (RR: 1.43, 95%CI: 1.10 to 1.87 vs RR: 1.51, 95% CI: 1.09 to 2.08). One RCT showed that the asthma score was lowered more effectively in the treatment group than in the control group (MD:-1.10, 95% CI:-2.04 to-0.16). Two RCTs showed that the gastroesophageal reflux score was reduced more effectively in the treatment group than in the control group (RR:-3.70, 95% CI:-4.30 to 3.10 vs RR:-5.30, 95% CI:-6.32 to -4.28). One RCT showed that some pulmonary function values were improved more effectively in the treatment group than in the control group (P < 0.05). No differences were seen in the various indexes between groups in the other RCTs. No adverse reactions, dropout rates, or follow-up rates were reported in any of the RCTs. CONCLUSIONS: The clinical symptoms of non-acute asthma complicated by gastroesophageal reflux can be improved by some Chinese drugs. Curative effects can be increased by combining the use of TCM with Western medicine. Because of the small quantity and low quality of research reported to date, it is necessary to conduct further RCTs to confirm these results. The results of this systematic review indicate that the quality of future clinical trials should be improved by including larger patient numbers, correctly randomizing patients into study groups, using blinding methods to measure and assess outcomes, and using accepted indexes to evaluate curative effects.

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2548. Oral traditional Chinese medication for adhesive small bowel obstruction

By Suo Tao; Gu Xixi; Andersson Roland; Ma HuaiXing; Zhang Wei; Deng Wei; Zhang Boheng; Cai Dingfang; Qin Xinyu

From Cochrane database of systematic reviews (Online) (2012). 5CD008836, Language: English, Database: MEDLINE
BACKGROUND: Small bowel obstruction (SBO) is one of the most common emergent complications of general surgery. Intra-abdominal adhesions are the leading cause of SBO. Because surgery can induce new adhesions, non-operative management is preferred in the absence of signs of peritonitis or strangulation. Oral traditional Chinese herbal medicine has long been used as a non-operative therapy to treat adhesive SBO in China. Many controlled trials have been conducted to investigate its therapeutic value in resolving adhesive SBO. OBJECTIVES: The aim of this review was to assess the efficacy and safety of oral traditional Chinese medicine (TCM) for adhesive small bowel obstruction. SEARCH METHODS: We searched the following databases, without regard to language or publishing restrictions: the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE, Chinese Biomedical Database (CBM), China National Knowledge Infrastructure/Chinese Academic Journals full-text Database (CNKI), and VIP (a full-text database of Chinese journals). The searches were conducted in November 2011. SELECTION CRITERIA: Randomised controlled trials and quasi-randomised controlled trials comparing traditional Chinese medicines administered orally, via the gastric canal, or both with a placebo or conventional therapy in participants diagnosed with adhesive SBO were considered. We also considered trials of TCM (oral administration, gastric tube perfusion, or both) plus conventional therapy compared with conventional therapy alone for patients with adhesive SBO. Studies addressing the safety and efficacy of oral traditional Chinese medicinal agents in the treatment of adhesive SBO were also considered. DATA COLLECTION AND ANALYSIS: Two authors collected the data independently. We assessed the risk of bias according to the following methodological criteria: random sequence generation, allocation concealment, blinding, incomplete outcome data, selective outcome reporting and other sources of bias. Dichotomous data are presented as risk ratios (OR) and 95% confidence intervals (CI); continuous outcomes are presented as mean differences (MD) and 95% CIs. The data analyses were carried out using Review Manager 5.1. For cases in which necessary information was not reported in the paper, we contacted the primary authors for additional information. MAIN RESULTS: Five randomised trials involving 664 participants were analysed. Five different herbal medicines were tested in these trials, including Huo-Xue-Tong-Fu decoction, Xiao-Cheng-Qi-Tang decoction, a combination of Xiao-Cheng-Qi-Tang and Si-Jun-Zi-Tang decoctions, Chang-Nian-Lian-Song-Jie-Tang decoction, and Fufang-Da-Cheng-Qi-Tang decoction. There were variations in the tested herbal compositions and methods of medicine administration. The main outcomes reported in the trials were effects on abdominal pain, abdominal distension, constipation defecation, time of first defecation after treatment, and reoperation rate during the course of the disease. Secondary outcomes selected for this review were not available, including complications such as small bowel perfusion (bowel resection, systemic complications, and other possible complications), length of hospital stay, cost of hospitalisation, and time from admission to surgical intervention. The results of five trials showed that patients receiving TCM combined with conventional therapy seemed to have improved outcomes compared with patients receiving conventional treatment alone (OR 4.24, 95% CI 2.83 to 6.36). However, we cannot conclusively determine the efficacy of TCM in this review due to inadequate reporting, low methodological quality, and the prevalence of various biases in the reviewed studies. Furthermore, because none of the reviewed trials discussed adverse events, we could not evaluate the safety of TCM for adhesive SBO patients. All trials were conducted and published in China. AUTHORS’ CONCLUSIONS: Although many studies have assessed the use of TCM products for adhesive SBO, most were excluded from this review due to their methodological limitations. This systematic review did not find sufficient evidence to support the objective efficacy and safety of TCM for patients with adhesive SBO. The positive evidence should be interpreted with caution given the insufficient number of studies with large sample sizes, the absence of well-designed, high-quality trials, and the lack of safety information. Therefore, further studies with larger sample sizes and high-quality, randomised, and controlled trials are necessary to produce more accurate and meaningful data on the efficacy of Chinese herbal medicines for adhesive SBO.

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2549. Traditional Chinese medicine: theoretical background and its use in China

By Oravecz Mark; Meszaros Judit
From Orvosi hetilap (2012), 153(19), 723-31, Language: Hungarian, Database: MEDLINE

This paper aims to define the concept of traditional Chinese medicine. Chinese medicine has its own unique system of knowledge, which fundamentally defines all of its therapeutic procedures (acupuncture, manual therapy, and Chinese herbal medicine). The authors offer a detailed description of the theoretical basics of Chinese medicine: classification of the normal and pathological processes of the human body based on functional models and a high degree of therapeutic individualization. The authors describe the current practice of Chinese medicine based on the Chinese model, without which modern Chinese medicine cannot exist. This concept pervades the education, clinical practice, and research of Chinese medicine. If we hope to adequately satisfy scientific inquiry about Chinese medicine, we must first define its theoretical background and get acquainted with its scope of usage in modern China. The clarification of these basic issues will be beneficial to scientific research and legislative procedures.

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2550. Herbal medicine, Chaplin, and "The Kid"
At variance with other largely safe complementary alternative medicines like homeopathy and acupuncture, which only carry the risk of inducing patients to shun effective treatment, herbal remedies are real, albeit impure, drugs and therefore fully capable of producing undesirable consequences if misused. The advantages they offer are uncertain since genuine evidence of efficacy and effectiveness is present in only a few cases. A result of this imbalance is that studies in this field are considerably more meaningful when they deal with untoward effects than with therapeutic uses. This disproportion has suggested to us the curious similarity with the situation portrayed in the film "The Kid" where the essential task of the protagonist (Chaplin) is to repair the windows his stone-throwing child has just broken.

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2551. An Asian perspective on the management of distal radius fractures

By Sebastin Sandeep J; Chung Kevin C

From Hand clinics (2012), 28(2), 151-6, Language: English, Database: MEDLINE

There is limited data regarding the epidemiology, pathology, and management of distal radius fractures from centers in Asia. The advanced economies in Asia include Hong Kong, Japan, Korea, Singapore, and Taiwan, whereas the prominent emerging economies are China, India, Malaysia, Philippines, and Thailand. This article examines the available epidemiological data from Asia, compares the management of distal radius fractures in the advanced and emerging Asian economies and how they compare with the current management in the west. It concludes by offering solutions for improving outcomes of distal radius fractures in Asia.

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2552. Importance of metabolic activation study to the safe use of Chinese herbal medicines

By Ma Bin; Li Na; Lin Ge


The number of new drugs approved for clinical use per year is falling in the last decade. One approach to reduce the high rate of attrition during early drug development is to systematically determine the toxic metabolites on the mechanism basis. Traditional Chinese herbal medicines (CHM) have been used extensively for disease treatment and health care. Recently, they have also been used as raw materials for preparation of herbal dietary supplements and nutraceuticals worldwide. However, problems arise due to the adverse effects caused by CHM and their derived products. Similar to synthetic drugs, among the diverse mechanisms the metabolism-induced adverse effect/toxicity is an important safety issue of CHM. For safe use of CHM and herbal products, it is also necessary to study herb-induced toxicities using the mechanism-based approach. CHM consist of multi-ingredients, which makes the study of toxic metabolites more difficult and challenging than that of synthetic drug-induced toxicity. In this mini-review, using hepatotoxicity and nephrotoxicity induced respectively by metabolic activation of pyrrolizidine alkaloids and aristolochic acid present in CHM as examples, we address the significance of metabolic study of CHM and how it contributes to the delineation of the toxic mechanisms, development of mechanism-based biomarkers for the diagnosis and assessment of adverse effect/toxicity of CHM, prediction of toxic dosage, and reduction and prevention of toxicity of CHM.

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2553. Zingiber officinale (ginger) as an anti-emetic in cancer chemotherapy: a review

By Haniadka Raghavendra; Rajeev Antappa Govindaraju; Palatty Princy L; Arora Rajesh; Baliga Manjeshwar S

Despite significant advances and development of novel anti-emetics, nausea and vomiting (emesis) is a major side-effect of cancer chemotherapy. At times, severe nausea and vomiting may also lead to reduction in adherence to the treatment regimen, and this will concomitantly affect the patient's survival. The rhizome of Zingiber officinale, commonly known as ginger, is globally an important spice. It has been used for centuries in the Indian, Chinese, Arabic, Tibetan, Unani, and Siddha systems of traditional medicine to treat nausea and vomiting induced by different stimuli. Preclinical studies with experimental animals (dogs and rats) have shown that the various extracts of ginger and the ginger juice possess anti-emetic effects against chemotherapy-induced nausea and vomiting. Gingerol, the active principle, is also shown to possess anti-emetic effects in minks. However, with regard to humans, while most studies have been supportive of the preclinical observations, a few have been contradictory. The exact mechanism responsible for the anti-emetic effects of ginger is unknown; however, the ginger phytochemicals, especially 6-gingerol, 8-gingerol, 10-gingerol, and 6-shogaol, may function as a 5-hydroxytryptamine (5-HT3) antagonist, NK1 antagonist, antihistaminic, and possess prokinetic effects. The present review for the first time attempts to address the anti-emetic observations and the variability in response of the anti-emetic effects of ginger in cancer chemotherapy. An attempt is also made to address the lacunae in the published studies and emphasize aspects that need further investigations for ginger to be of use in clinics as an anti-emetic agent in the future.

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2556. Review of complementary and alternative medicine and selected nutraceuticals: background for a pilot study on nutrigenomic intervention in patients with advanced cancer

By Varker Kimberly A; Ansel Adam; Aukerman Glen; Carson William E 3rd
From Alternative therapies in health and medicine (2012), 18(2), 26-34, Language: English, Database: MEDLINE

As commonly defined, complementary and alternative medicine (CAM) is a broad category that includes biologically based practices, mind-body medicine, manipulative and body-based practices, and energy medicine as well as complete medical systems such as naturopathy, homeopathy, Ayurvedic medicine, and traditional Chinese medicine. Several CAM methodologies show promise for the treatment of chronic conditions such as depression and pain disorders or have demonstrated effects upon the immune response in experimental studies. There is growing interest in the use of integrative medicine the combination of CAM methodologies with a conventional medical approach for the optimization of treatment of various cancers. The Ohio State University Center for Integrative Medicine has developed a specialized nutrigenomic protocol for integrative cancer care. The center uses a comprehensive nutritional and medical evaluation, including a panel of proinflammatory molecules and physiologic parameters, to guide a program of individualized dietary interventions. Dietary supplementation is a current focus of study, including: (1) Omega-3 fatty acids and B vitamins, which are thought to play important roles in immunomodulation; (2) Magnesium oxide, which has been shown to decrease inflammation and improve insulin resistance and lipid profiles; and (3) Cinnamon extract, which reportedly decreases serum glucose levels. This article presents a brief overview of CAM and integrative medicine and a discussion of the relevant nutraceuticals.

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2557. Four types of traditional Chinese medicine inducing epileptic seizures

By Wu Mengjiao; Fang Min; Hu Yida; Wang Xuefeng

Traditional Chinese medicine has been used to treat disease in China for more than five thousand years. Over the last few decades it has been used increasingly in other countries as well. As its use has spread, interest in the adverse effects of traditional Chinese medicine, including epilepsy and epileptic seizures, has grown. To date, four types of traditional Chinese medicine have been found to induce epileptic seizures. In this review we will summarize the current knowledge about possible epileptogenic mechanisms of nux vomica, illicium henryi, betelnut and mulberry drawing on botanical, phytochemical, toxicological and animal studies.

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2558. Drug metabolism and pharmacokinetics of nanodrugs from Chinese medicines and natural products

By Liu Chang-Xiao; Si Duan-Yun; Xiao Xue-Feng; He Xin; Li Ya-Zhuo

Over the past few years, nanoscale Chinese medicine has become one of focuses in modern Chinese medicine research. There is an increasing need for a more systematic study on the basic issues involved in traditional Chinese medicine and a more active participation of researchers in the application area of nanoscale traditional Chinese drugs. In this review, author analyzed the current applications of nanotechnology in research and development of drugs from natural products and herbal medicines involving traditional Chinese medicines, and also discussed the bio-pharmacokinetic evaluation issues on ADME including bio-distribution and metabolism of nanodrugs. Author noted that great challenges faced in nanodrugs from herb drugs and natural products are the follows: (1) the first challenge is to prepare nanodrug delivery system and quantitatively evaluate the therapeutic effects and safety; (2) the second challenge is to clarify the concrete metabolism course; and (3) the third challenge is to study the pharmacokinetics of nanodrugs.

~0 Citings
2559. Interactions between phytochemicals from traditional Chinese medicines and human cytochrome P450 enzymes
By Wu Jing-Jing; Ai Chun-Zhi; Liu Yong; Zhang Yan-Yan; Jiang Miao; Fan Xu-Ran; Lv Ai-Ping; Yang Ling

Traditional Chinese medicine (TCM) formulas with fixed combinations rely on "sovereign, minister, assistant and guide" and fuzzy mathematical quantitative law, leading to greater challenges for the identification of active ingredients. Transformation and metabolic studies involving the Phase I drug-metabolizing enzyme cytochrome P450 (CYP) might potentially solve some of these challenges. The pharmacological effects can not be attributed to one active ingredient in TCMs, but integrated effects resulting from the combined actions of multiple ingredients. However, it is only after long-term administration that most ingredients exert their actions, which can result in prolonged exposure to herbs in vivo. Therefore, interactions between herbal compounds and CYPs appear to be inevitable. Yet unlike Western drugs, experimental determination of the absorption and disposition properties is not commonly carried out for TCMs. Moreover, the use of TCM as injections is an innovation aimed to improve efficiency in extensive clinical use in Mainland China. Therefore, in recent years, cases of adverse drug reactions (ADR) mainly concerning allergic reactions involving TCMs such as ShenMai injection and QingKaiLing injection have been reported, which have attracted attention with regard to the legal responsibilities for TCM approval. The lack of information on the ADME characteristics, especially the metabolic stability and interaction potential between CYPs and herbs, increases ADR occurrence due to TCMs. In this article, we review the most common herbs used in TCM prescriptions and fixed combinations of their usable frequency, and summarize the current understanding of the ability of phytochemical ingredients to act as substrates, inhibitors or inducers of human CYP enzymes, through which the key role of CYP enzymes on the herb disposition and toxicity is highlighted. The potential interaction between herbal phytochemicals and CYP enzymes dominates the target exposure, which further helps to elucidate the herbal pharmacological basis, assess the individual toxic risk of herbal remedies and gain mechanistic insight into herb-drug interactions (HDIs).

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2560. Disease-syndrome combination clinical study of psoriasis: present status, advantages, and prospects
By Lu Chuan-Jian; Yu Jing-Jie; Deng Jing-Wen
From Chinese journal of integrative medicine (2012), 18(3), 166-71, Language: English, Database: MEDLINE

Psoriasis is an immune-abnormal, chronic, proliferative skin disease determined by polygenic inheritance and induced by a number of environmental factors. It causes worldwide concern because of its high-prevalence, harmful and incurable characteristics. Over the years, Chinese medicine (CM) treatment of psoriasis has accumulated a wealth of clinical experience. Disease-syndrome combination, which achieves more satisfactory clinical effect, is the basis to highlight the special CM advantages in treating psoriasis. In this paper, we review the advantages of treating psoriasis with the combination of disease and syndrome, analyze the prospects of research on treating psoriasis combining disease with syndrome. We also make a point that there are several key points for the clinical research of combination of disease and syndrome. It can be expected that carrying out clinical research on the combination of disease and syndrome will help improve the clinical efficacy of medical treatment of psoriasis, which will be the main direction of research in the future.

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2561. A systematic review of RCTs and quasi-RCTs on traditional Chinese patent medicines for treatment of chronic hepatitis B
By Zhan Tao; Wei Xing; Chen Ze-Qi; Wang Dong-Sheng; Dai Xing-Ping
Traditional Chinese patent medicines (TCPMs) are widely used for treatment of chronic hepatitis B (CHB) in China. To estimate the overall effectiveness of TCPMs for CHB, we performed a systematic review of clinical reports designed as randomized controlled trials (RCTs). One hundred and thirty-eight available RCTs and quasi-RCTs on 62 TCPMs, involving 16,393 patients, were included. The methodological quality of these trials was generally "poor". Few trials (6.52%) reported the methods of randomization correctly. Another common problem was the lack of allocation concealment, proper blinding, and the reporting of lost cases and dropouts. Forty-two trials (30.43%) on 27 TCPMs reported some anti-viral effect of TCPMs. Others reported beneficial aspects, including improvements of liver function (79.71% of the studies), liver fibrosis (29.99%), and CHB symptoms (92.75%). Forty-one articles (29.71%) reported mild adverse events with TCPMs but these occurred infrequently. In summary, the outcome of the report on currently registered TCPMs may be biased due to poor methodology. The data from these trials, therefore, is too weak to use in forming a recommendation for treatment of CHB. Nevertheless, five drugs (Dan Shen agents, Da Huang Zhe Chong pill/capsule, Shuang Hu Qing Gan granule, Fu Zheng Hua Yu granule and Cao Xian Yi Gan capsule) appear to be more effective than the other TCPMs.

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2562. Characteristics and advantages of traditional Chinese medicine in the treatment of acute myocardial infarction

By Liu Hong-Xu; Wang Shuo-Ren; Lei Yan; Shang Ju-Ju

OBJECTIVE: To obtain epidemiological data on Traditional Chinese Medicine (TCM) therapeutic status of acute myocardial infarction (AMI) and to determine TCM characteristics and advantages to improve the level of TCM prevention and treatment of AMI. METHODS: Clinical epidemiology methods were used to register and survey the TCM therapeutic status of hospitalized AMI patients. In 2001, the Chinese Association of Integrative Medicine surveyed the therapeutic status of 3308 AMI patients hospitalized in 30 hospitals in Beijing and Shanghai from 2000-2001. The Beijing Collaborative Study Group on Therapeutic Status of Acute Myocardial Infarction (the Study Group) then conducted a 10-year-long register survey on hospitalized AMI patients in Third-grade A-Level TCM hospitals in Beijing. After 2002, the Study Group further surveyed the treatment conditions of AMI-hospitalized patients in 10 Second-grade A-Level TCM hospitals. The therapeutic status in 8 Third-grade A-Level Western medicine hospitals was surveyed in 2001 and 2005 as a control. In 2008, in cooperation with the China Association of Chinese Medicine, the Study Group further performed a survey at 26 Third-grade A-Level TCM hospitals nation-wide. Approximately 5000 cases were investigated to obtain authoritative data on the therapeutic status of AMI patients in TCM hospitals in China. RESULTS: We found that Chinese herbal intravenous preparations may be beneficial in reducing the mortality of AMI. Major complications of AMI, such as heart failure and arrhythmia, were significantly less during the 10-year survey period. The mortality of hospitalized AMI patients showed a decline. TCM treatment was helpful for AMI patients in improving their quality of life. Ten-year dynamic monitoring showed that the ability to perform reperfusion and to use drugs appropriately, as well as an effort to carry out the Clinical Guidelines has made great progress in TCM hospitals. However, TCM hospitals still have some problems in treating AMI, including a lack of standardized TCM syndrome diagnosis, the need for syndrome differentiation and treatment standardization, and clinical skills in reperfusion and standardized drug treatment still need to be further improved. Compared with AMI patients in Western medicine hospitals during the same period, those in TCM hospitals had the following characteristics: they were admitted to hospital later; they were older when they had a heart attack; there were more females, they had more problems in their medical history, and they had more concomitant illnesses and complications. Therefore, the demographic baseline data were significantly different between AMI patients in TCM hospitals and those in Western medicine hospitals. This indicated that patients in TCM hospitals were more critical than those in Western medicine hospitals. CONCLUSIONS: TCM has special advantages in treating AMI. TCM hospitals are making continuous progress in standardized treatment of AMI, but further improvement is still required. AMI patients in TCM hospitals have some special characteristics, and their condition may be more critical. Further clinical research on TCM treatment of AMI is required.

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2563. Thoughts on intervention in HIV/AIDS with traditional Chinese medicine

By Wu Xin-fang; Wang Jie; Li Yong; Tang Yan-Li; Zhao Dan-Dan
HIV/AIDS has become a worldwide pandemic and highly active antiretroviral therapy (HAART) is the only generally recognized effective therapy at present. However, various unresolvable problems appear with the widespread use of HAART. Traditional Chinese Medicine shows good efficacy for intervention in HIV/AIDS and could become an effective treatment option.

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2564. Progress in tumor vascular normalization for anticancer therapy: challenges and perspectives
By Shang Bingxue; Cao Zhifei; Zhou Quansheng
From Frontiers of medicine (2012), 6(1), 67-78, Language: English, Database: MEDLINE

Antitumor angiogenic therapy has been shown promising in the treatment of several advanced cancers since the approval of the first antiangiogenic drug Avastin in 2004. Although the current antiangiogenic drugs reduce the density of tumor blood vessels and result in tumor shrinkage at the early stage of treatment, recent studies have shown that antiangiogenic therapy has transient and insufficient efficacy, resulting in tumor recurrence in patients after several months of treatment. Blockage of blood and oxygen supplies creates a hypoxic and acidic microenvironment in the tumor tissues, which fosters tumor cells to become more aggressive and metastatic. In 2001, Jain proposed tumor vascular normalization as an alternative approach to treating cancers based on the pioneering work on tumor blood vessels by several other researchers. At present, normalizing the disorganized tumor vasculature, rather than disrupting or blocking them, has emerged as a new option for anticancer therapy. Preclinical and clinical data have shown that tumor vascular normalization using monoclonal antibodies, proteins, peptides, small molecules, and pericytes resulted in decreased tumor size and reduced metastasis. However, current tumor vascular normalizing drugs display moderate anticancer efficacy. Accumulated data have shown that a variety of vasculogenic/angiogenic tumor cells and genes play important roles in tumor neovascularization, growth, and metastasis. Therefore, multiple-targeting of vasculogenic tumor cells and genes may improve the efficacy of tumor vascular normalization. To this end, the combination of antiangiogenic drugs with tumor vascular normalizing therapeutics, as well as the integration of Western medicine with traditional Chinese medicine, may provide a good opportunity for discovering novel tumor vascular normalizing drugs for an effective anticancer therapy.

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2565. Individualized medicine, health medicine, and constitutional theory in Chinese medicine
By Wang Qi
From Frontiers of medicine (2012), 6(1), 1-7, Language: English, Database: MEDLINE

The patterns of modern science and changes in the medical model can result in the transformation of the current state of individualized and health medicines into being the primary trend in medical development. Chinese and Western medical systems are dissimilar in terms of value orientations, thinking style, and research directions because of their different historical and cultural backgrounds. Individualized treatment in modern medicine is mainly established based on individual genome information and the differences in mononucleotide polymorphisms. However, such treatment method is expensive, creates an uncertain genetic marker, and leads to different result interpretations, among other problems. The Chinese constitutional theory developed in the 1970s expresses the principle behind Chinese health medicine and individual treatment and provides the corresponding methods. The Chinese constitutional theory divides the constitution of the Chinese population into nine categories based on established classification criteria. It promotes the study of the relationship of each constitution to diseases and Chinese medicine preparation toward adjusting the constitution and preventing diseases. The theory also provides methods and tools for individualized treatment. Constitution identification shows the direction and provides the core technology for the evaluation of the health status. By combining the developments in modern biotechnology, new diagnostic techniques and treatment models of constitution-differentiation, disease-differentiation, and syndrome-differentiation can be established for the development of individualized Chinese medicine treatment and health medicine for the international medical community.

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2566. Current progress of research on pharmacologic actions of salvianolic acid B
By Cao Wei; Guo Xiao-Wen; Zheng Hu-Zhan; Li De-Ping; Jia Guan-Bo; Wang Jie
From Chinese journal of integrative medicine (2012), 18(4), 316-20, Language: English, Database: MEDLINE
As one of the main water-soluble composites of Radix Salviae, salvianolic acid B is a phenolic acid ingredient of the Chinese drug, which is rich content in the herb and has strong pharmaceutical activity. It is used to treat cardiocerebral vascular diseases, antagonize hepatic/renal fibrosis, prevent cancer, and promote stem cell proliferation and differentiation. In the researches of its acting mechanisms, rather deepened studies have been carried out for its application on cardiocerebral vascular diseases, but that for others are rather fewer.

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2567. Chinese medicine for treatment of chronic hepatitis B

By Wang Guqi; Zhang Lingyi; Bonkovsky Herbert L
From Chinese journal of integrative medicine (2012), 18(4), 253-5, Language: English, Database: MEDLINE

Contemporary Western medicines approved by the U.S. Food and Drug Administration (FDA) for the treatment of chronic hepatitis B (CHB), although available in China, have high costs, or major side effects and limited effectiveness. Research efforts have focused on looking for natural products as alternative medicines with low cost and good safety for CHB treatment. Chinese medicine (CM) has ancient, time-honored theories about methods of diagnosis and treatment for liver diseases. In recent decades, a large number of clinical trials and pre-clinical studies, which were performed in China and other countries, indicated that CM has potential benefit in several aspects of the treatment of CHB, e.g., anti-inflammatory, anticancer, antioxidant, immunomodulating, antifibrosis, and antiviral. However, there are many concerns regarding the study design and the quality of clinical trials. Further larger, stringently designed, double-blind, placebo control, randomized clinical trials and long-term follow-up are needed to provide conclusive evidence of their efficacy and safety. Components of CM deserve further study in pre-clinical models of HBV infection and in clinical trials world-wide.

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2568. Identifying the targets for treatment of liver fibrosis and hepatocellular carcinoma from both Western medicine and Chinese medicine

By Gong Yuewen
From Chinese journal of integrative medicine (2012), 18(4), 245-9, Language: English, Database: MEDLINE

Liver fibrosis and hepatocellular carcinoma (HCC) are emerging health problems worldwide. Number of death due to HCC was steadily increased during the last decade. Although liver fibrosis and HCC have been investigated extensively, there are no successful and/or satisfactory therapies especially for patients with HCC. From our understanding of both Western medicine and Chinese medicine, it could identify the targets in liver fibrosis and HCC for intervention with Chinese medicine such as bone morphogenetic protein 4 (BMP-4). BMP-4 expression was significantly increased in both liver fibrosis and HCC and saponin class of certain Chinese herbs could regulate its expression. Therefore, BMP-4 could be one of the targets for treatment of liver fibrosis and HCC from integrative medicine.

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2569. Mercury-based traditional herbo-metallic preparations: a toxicological perspective

By Kamath Sushant U; Pemiah Brindha; Sekar Rajan K; Krishnaswamy Sridharan; Sethuraman Swaminathan; Krishnan Uma Maheswari
From Archives of toxicology (2012), 86(6), 831-8, Language: English, Database: MEDLINE
This review aims to explore the toxicological aspects of mercury-based herbo-metallic preparations like cinnabar and "Rasasindura" that are primarily composed of mercuric sulfide (HgS). Cinnabar-containing preparations have been used extensively in Indian and Chinese systems of medicine for treatment of chronic ailments like syphilis, high fever, pneumonia, insomnia, nervous disorders, deafness, and paralysis of the tongue. Contrary to Western medicine, which does not promote the use of mercury due to its toxic effects, Indian and Chinese traditional practitioners believe that mercury-based formulations have potent therapeutic efficacy, while there is no toxicity due to the unique and repeated purification processes employed during preparation. However, lack of proper pharmacovigilance and widespread self-medication has resulted in undesirable effects to certain sections of the consumers of these preparations, which have contributed to the negative publicity for these forms of medicine. Variations in the quality of the preparations coupled with the lack of understanding of the differences in the recommended dosages and treatment strategies adopted by traditional medicine practitioners, further fuels concerns in the Western world on the safety and efficacy of traditional medicine. But in spite of these concerns, concerted efforts to understand the biological interactions and transformations of these preparations are yet to gain momentum. Although scattered reports on the toxicity of these preparations are available in literature, their mechanism of action has not been conclusively established. Long-term pharmacotherapeutic and in-depth toxicity studies are needed to address the apprehensions raised by these herbo-metallic preparations. This review highlights the lacunae in the studies conducted thus far, and assesses the need for further studies to provide significant data to establish the safety and efficacy of such preparations, as well as develop gold standards for stringent quality control of these preparations.

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2570. Dermatoses secondary to Asian cultural practices
By Lilly Evelyn; Kundu Roopal V

Although Asian cultural practices, such as acupuncture and threading, are widely used, there is limited medical literature describing their cutaneous effects and complications. This review briefly describes therapeutic cultural practices (traditional Chinese medicine, acupuncture, cupping, moxibustion, coining, Ayurveda, and aromatherapy) and cosmetic cultural practices (hair oils, henna, bindis, saris, and threading), with particular attention to dermatoses secondary to these practices. Traditional Chinese medicine and Ayurveda may cause heavy metal toxicity, severe cutaneous adverse reactions, and contact dermatitis. Cupping, moxibustion, and coining lead to dermatoses that may be mistaken for abuse by people unfamiliar with the practices. Hair oils may cause contact dermatitis and folliculitis. Paraphenylenediamine in black henna and bindi dyes and adhesives can cause severe allergic contact dermatitis. The drawstring in saris causes frictional irritation, which can lead to tinea corporis, koebnerization, and even squamous cell carcinoma. Threading may cause folliculitis, impetigo, and verrucae. The increasing prevalence of Asian cultural practices, which are performed inside and outside of Asia in this era of globalization, demands that dermatologists be familiar with the secondary dermatoses that may develop.

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2571. Botany, traditional uses, phytochemistry and pharmacology of Apocynum venetum L. (Luobuma): A review
By Xie Wenyan; Zhang Xiaoying; Wang Tian; Hu Jianjun
ETHNOPHARMACOLOGICAL RELEVANCE: *Apocynum venetum* L. (Apocynaceae, Luobuma) has a long history as a Chinese traditional medicine with uses to calm the liver, soothe the nerves, dissipate heat, and promote diuresis. Recently, Luobuma tea has been commercialized as a sedative and anti-aging supplement that has become increasingly popular in North American and East Asian health food markets.

AIMS OF THE REVIEW: The aim of this review is to provide an up-to-date and comprehensive overview of the botany, chemical constituents, traditional uses, pharmacological activities and safety aspects of *Apocynum venetum* in order to assess its ethnopharmacological use and to explore its therapeutic potentials and future opportunities for research.

BACKGROUND AND METHODS: The accessible literature on *Apocynum venetum* written in English, Chinese and Japanese were collected and analyzed. The literatures included ancient Chinese herbal classics, pharmacopoeias and articles that included in Pubmed, Web of Science, Google Scholar and Wanfang.

KEY FINDINGS: Modern pharmacological studies demonstrated that *Apocynum venetum* possess wide pharmacological activities that include antihypertensive, cardiotonic, hepatoprotective, antioxidant, lipid-lowering, antidepressant and anxiolytic effects, which can be explained by the presence of various flavonoid compounds in this plant. The traditional (Lop Nor region) use of *Apocynum venetum* with tobacco as an agent to detoxify nicotine may receive interest as a possible therapeutic option to detoxify the body from smoking. Based on animal studies and clinical trials, *Apocynum venetum* causes no severe side effects, even in a stable daily dosage (50mg/person/day) for more than three years.

CONCLUSIONS: *Apocynum venetum* potentially has therapeutic potential in the prevention and treatment for the cardiovascular and neurological diseases, especially for high blood pressure, high cholesterol, neurasthenia, depression and anxiety. Further investigations are needed to explore individual bioactive compounds responsible for these in vitro and in vivo pharmacological effects and the mode of actions. Further safety assessments and clinical trials should be performed before it can be integrated into medicinal practices.
ETHNOPHARMACOLOGICAL RELEVANCE: Traditional Chinese Medicine (TCM), including Traditional Chinese Medicine drugs (TCM drugs), has been playing a very important role in health protection and disease control for thousands of years in China. Relying on natural products, mainly of herbal origin, used either as raw materials for decoction, as prepared herbal medicines or as formulated traditional medicines, TCM is still widely accepted by Chinese people, especially for chronic diseases treatment. This extensive use warrants safety measures and so TCM drug safety monitoring and risk management are becoming increasingly important tasks for the Chinese State Food and Drug Administration (SFDA). METHODS: The Adverse Drug Reaction (ADR) monitoring system in China was established both for western and TCM drugs in 1989 as a voluntary reporting system with a National Center collecting and compiling reports. Serious or multi-case reports on individual TCM drug or formulated products are detailed in the Chinese ADR Information Bulletin to inform the public and Drug Administrative authorities for risk management. RESULTS: About 10-15% of the ADR reports received by the National Center are related to TCM drugs and mainly pertaining to the formulated products. In certain cases, the suspension of a particular TCM preparation is decided by SFDA China. CONCLUSION: The model of safety monitoring and risk management of TCM drugs is still under exploration. Indeed, the characteristics and risk factors associated with these drugs require both proper understanding and control of the risk by strengthening standardization of clinical applications, basic science research, quality control in manufacturing, exploration of the actives monitoring methodology and enhancement of international communication and cooperation.

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2574. Future development of global regulations of Chinese herbal products
By Fan Tai-Ping; Deal Greer; Koo Hoi-Lun; Rees Daryl; Sun He; Chen Shaw; Dou Jin-Hui; Makarov Valery G; Pozharitskaya Olga N; Shikov Alexander N; et al

ETHNOPHARMACOLOGICAL RELEVANCE: GP-TCM is the first EU-funded Coordination Action consortium dedicated to traditional Chinese medicine (TCM) research. One of the key deliverables of the Work Package 7 in GP-TCM was to investigate information of the existing requirements for registration of TCM products listed by global regulatory bodies. The paper aims to collate data and draw comparison of these regulations. Case studies are also presented to illustrate the problems involved in registering TCM products in different regions worldwide. MATERIALS AND METHODS: A collaborative network task force was established during the early stage of the GP-TCM project and operated through exchanges, teleconferences and focused discussions at annual meetings. The task force involved coordinators, academics who are actively involved with R&D of Chinese herbal medicines, experts on monographic standards of Chinese materia medica, representatives from regulatory agencies, experts from industries in marketing Chinese medicines/herbal medicines and natural products. The co-ordinators took turns to chair teleconferences, led discussions on specific issues at AGM discussion sessions, at joint workshops with other work-packages such as WP1 (quality issues), WP3 (toxicology issues) and WP6 (clinical trial issues). Collectively the authors were responsible for collating discussion outcomes and updating written information. RESULTS: A global overview of regulations on herbal registration has been compiled during the three years of the consortium. The regulatory requirements for registration of herbal products in the EU and China were compared, and this is extended to other regions/countries: Africa, Australia, Brazil, Canada, Japan, Russia, South Korea, Taiwan, and the United States. A wide variation of the regulations for the categories of herbal products exists: food (functional food, novel foods, dietary food for special medical purpose, foods for particular nutritional use, food supplement); cosmetic, traditional herbal medicine products; herbal medicines for human use and veterinary use. CONCLUSION: The regulatory issues for registration of herbal products are complicated among the countries and regions worldwide. The information summarised in the text is for reference only. Some regulations which are presented in this review are still in legislation process and may change in due course. Before taking any regulatory action, readers are advised to consult current official legislation and guidance and/or to seek appropriate professional advice. The lessons learnt from global regulation of TCM will provide valuable insights for regulation of other traditional medicine such as Ayurveda and Unani medicine, as well as other forms of indigenous medicine. The WHO is well placed to co-ordinate a consultation process with the aim of putting forward suggestions for harmonisation to key regulatory agencies.

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2575. MEDLINE-based assessment of animal studies on Chinese herbal medicine
By Tejedor Garcia Noelia; Garcia Bermejo Laura; Fernandez Martinez Ana Belen; Olmos Centenera Gemma; Kumari Rajendra; Xu Qihe; Cheng Xiaodong; Watson Sue; de Lucio Cazana Francisco Javier
UNLABELLED: ETHNO-PHARMACOLOGICAL RELEVANCE: The scientific proof and clinical validation of Chinese herbal medicine (CHM) requires a rigorous approach that includes chemical standardization, biological assays, animal studies and clinical trials. AIM OF THE STUDY: To assess the experimental design of animal studies on the activity of CHM by selection and scrutinizing of a series of papers in some major disease areas. MATERIALS AND METHODS: We have analyzed the English publications reported in MEDLINE (ISI web of knowledge). RESULTS: Our data showed that (i) research of CHM during the last 10 years had been highly intensified and become more accessible worldwide through increased publications in English, although still most authors had Chinese names; (ii) English journals publishing animal research of CHM were comparable to those publishing animal studies of non-Chinese phytotherapy in terms of impact factor; and (iii) published data on authentication and quality control of CHM, as well as research design of animal studies were far from sufficient to meet the criteria needed to support their reproducibility and reliability. CONCLUSIONS AND PERSPECTIVES: The recent decade witnessed an increase in CHM research activities and CHM English publications. Based on common problems identified in publications on CHM animal studies, we have proposed a checklist that could help in preliminary selection of publications lacking the most common problems and thus would be useful for a quick search of reproducible CHM regimens that are likely to be effective in a given context. The second application of this checklist is to help avoid the most common problems when designing experiments.

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2576. Comparison of effectiveness and safety between granules and decoction of Chinese herbal medicine: a systematic review of randomized clinical trials

By Luo Hui; Li Qing; Flower Andrew; Lewith George; Liu Jianping

BACKGROUND: The clinical use of Chinese herbal medicine granules is gradually increasing. However, there is still no systematic review comparing the effectiveness and safety of granules with the more traditional method of herbal decoctions. METHOD: A literature search was conducted using China National Knowledge Infrastructure Databases (CNKI), Chinese Science and Technology Periodical Database (VIP), China Biomedical Database web (CBM), Wanfang Database, PubMed, and the Cochrane Library until March 10, 2011. Clinical controlled trials (CCTs) including randomized trials (RCTs) comparing the effectiveness and safety between Chinese herbal medicine granules and decoction were included. Two authors conducted the literature searches, and extracted data independently. The assessment of methodological quality of RCTs was based on the risk of bias from the Cochrane Handbook, and the main outcome data of trials were analyzed by using RevMan 5.0 software. Risk ratio (RR) or mean difference (MD) with a 95% confidence interval (CI) were used as effect measure. RESULTS: 56 clinical trials (n=9748) including 42 RCTs and 14 CCTs were included, and all trials were conducted in China and published in Chinese literature. 40 types of diseases and 15 syndromes of traditional Chinese medicine (TCM) were reported. Granules were provided by pharmaceutical companies in 13 trials. The included RCTs were of generally low methodological quality; 7 trials reported adequate randomization methods, and 2 of these reported allocation concealment. 10 trials used blinding, of which 5 trials used placebo which were delivered double blind (blinded participants and practitioners). 98.2% (55/56) of studies showed that there was no significant statistical difference between granules and decoctions of Chinese herbal medicine for their effectiveness. No severe adverse effects in either group were reported. CONCLUSIONS: Due to the poor methodological quality of most of the included trials, it is not possible to reach a definitive conclusion whether both Chinese herbal medicine granules and decoctions have the same degree of effectiveness and safety in clinical practice, but this preliminary evidence supports the continued use of granules in clinical practice and research. Standardization of granules and further more rigorous pharmacological, toxicological and clinical studies are needed to demonstrate the equivalence with decoctions.

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2577. Omic techniques in systems biology approaches to traditional Chinese medicine research: present and future

By Buriani Alessandro; Garcia-Bermejo Maria L; Bossicco Enrica; Xu Qihe; Li Huige; Dong Xuebin; Simmonds Monique S J; Carrara Maria; Tejedor Noelia; Lucio-Cazana Javier; et al

Omic techniques have become key tools in the development of systems biology. As the holistic approaches underlying the practice of traditional Chinese medicine (TCM) and new tendencies in Western medicine towards personalised medicine require in-depth knowledge of mechanisms of action and active compounds, the use of omic techniques is crucial for understanding and interpretation of TCM development, especially in view of its expansion in Western countries. In this short review, omic applications in TCM research are reviewed which has allowed some speculation regarding future perspectives for these approaches in TCM modernisation and standardisation. Guidelines for good practice for the application of omics in TCM research are also proposed.
2578. The potential of metabolic fingerprinting as a tool for the modernisation of TCM preparations
By Sheridan Helen; Krenn Liselotte; Jiang Renwang; Sutherland Ian; Ignatova Svetlana; Marmann Andreas; Liang Xinmiao; Sendker Jandirk

A vast majority Chinese herbal medicines (CHM) are traditionally administered as individually prepared water decoctions (tang) which are rather complicated in practice and their dry extracts show technological problems that hamper straight production of more convenient application forms. Modernised extraction procedures may overcome these difficulties but there is lack of clinical evidence supporting their therapeutic equivalence to traditional decoctions and their quality can often not solely be attributed to the single marker compounds that are usually used for chemical extract optimisation. As demonstrated by the example of the rather simple traditional TCM formula Danggui Buxue Tang, both the chemical composition and the biological activity of extracts resulting from traditional water decoction are influenced by details of the extraction procedure and especially involve pharmacokinetic synergism based on co-extraction. Hence, a more detailed knowledge about the traditional extracts' chemical profiles and their impact on biological activity is desirable in order to allow the development of modernised extracts that factually contain the whole range of compounds relevant for the efficacy of the traditional application. We propose that these compounds can be identified by metabolomics based on comprehensive fingerprint analysis of different extracts with known biological activity. TCM offers a huge variety of traditional products of the same botanical origin but with distinct therapeutic properties, like differentially processed drugs and special daodi qualities. Through this variety, TCM gives an ideal field for the application of metabolomic techniques aiming at the identification of active constituents.

2579. Good practice in reviewing and publishing studies on herbal medicine, with special emphasis on traditional Chinese medicine and Chinese materia medica
By Chan Kelvin; Shaw Debbie; Simmonds Monique S J; Leon Christine J; Xu Qihe; Lu Aiping; Sutherland Ian; Ignatova Svetlana; Zhu You-Ping; Verpoorte Rob; et al

ETHNOPHARMACOLOGICAL RELEVANCE: Studies on traditional Chinese medicine (TCM), like those of other systems of traditional medicine (TM), are very variable in their quality, content and focus, resulting in issues around their acceptability to the global scientific community. In an attempt to address these issues, an European Union funded FP7 consortium, composed of both Chinese and European scientists and named “Good practice in traditional Chinese medicine” (GP-TCM), has devised a series of guidelines and technical notes to facilitate good practice in collecting, assessing and publishing TCM literature as well as highlighting the scope of information that should be in future publications on TMs. This paper summarises these guidelines, together with what has been learned through GP-TCM collaborations, focusing on some common problems and proposing solutions. The recommendations also provide a template for the evaluation of other types of traditional medicine such as Ayurveda, Kampo and Unani. MATERIALS AND METHODS: GP-TCM provided a means by which experts in different areas relating to TCM were able to collaborate in forming a literature review good practice panel which operated through e-mail exchanges, teleconferences and focused discussions at annual meetings. The panel involved coordinators and representatives of each GP-TCM work package (WP) with the latter managing the testing and refining of such guidelines within the context of their respective WPs and providing feedback. RESULTS: A Good Practice Handbook for Scientific Publications on TCM was drafted during the three years of the consortium, showing the value of such networks. A "deliverable - central questions - labour division" model had been established to guide the literature evaluation studies of each WP. The model investigated various scoring systems and their ability to provide consistent and reliable semi-quantitative assessments of the literature, notably in respect of the botanical ingredients involved and the scientific quality of the work described. This resulted in the compilation of (i) a robust scoring system and (ii) a set of minimum standards for publishing in the herbal medicines field, based on an analysis of the main problems identified in published TCM literature. CONCLUSION: Good quality, peer-reviewed literature is crucial in maintaining the integrity and the reputation of the herbal scientific community and promoting good research in TCM. These guidelines provide a clear starting point for this important endeavour. They also provide a platform for adaptation, as appropriate, to other systems of traditional medicine.
**2580. Old formula, new Rx: the journey of PHY906 as cancer adjuvant therapy**

By Liu Shwu-Huey; Cheng Yung-Chi


ETHNOPHARMACOLOGICAL RELEVANCE: PHY906, is a decoction of a mixture of the four herbs Scutellaria baicalensis Geori, Glycyrrhiza uralensis Fisch, Paeonia lactiflora Pall, and Ziziphus jujuba Mill. A combination of these four herbs has been in continuous use in traditional Chinese medicine for over 1800 years for treating a variety of gastrointestinal distress such as diarrhea, cramps, nausea, vomiting etc. AIM OF THE STUDY: Preclinical and clinical studies to find PHY906 enhances the therapeutic indices of a broad spectrum of anticancer agents. MATERIALS AND METHODS: Using various mouse tumor xenograft and allograft models, PHY906 has been shown to enhance the chemotherapeutic efficacy of a variety of anticancer agents in various cancers. The PHY906 clinical program consists of five trials in three different types of cancers in both the United States and Taiwan. To date, approximately 150 subjects have received PHY906 in combination with chemotherapy in these five clinical studies. RESULTS: Preclinical studies have shown that PHY906 enhances the therapeutic indices of a broad spectrum of anticancer agents. These findings have been examined in clinical studies for colorectal, liver, and pancreatic cancers when PHY906 is used as an adjuvant to chemotherapy and the results were promising; i.e. PHY906 could reduce chemotherapy-induced toxicities and/or increase chemotherapeutic efficacy. Furthermore, PHY906 did not affect the pharmacokinetics of the chemotherapeutic agents used. Some information has been obtained regarding the mechanism of action of PHY906 in preclinical studies. A comprehensive platform, PhytomicsQC that integrates chemical and biological fingerprints together with a novel biostatistical methodology has been developed to assess the quality of different batches of PHY906. CONCLUSIONS: Over a ten-year period, the multiplex technology “PhytomicsQC” has been used to show batch-to-batch consistency of PHY906 production. Advanced clinical trials are ongoing to demonstrate the effectiveness of PHY906 as adjuvant therapy for cancer patients undergoing chemotherapy.

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**2581. In-silico studies in Chinese herbal medicines' research: evaluation of in-silico methodologies and phytochemical data sources, and a review of research to date**

By Barlow D J; Buriani A; Ehrman T; Bosisio E; Eberini I; Hylands P J

*From* Journal of ethnopharmacology (2012), 140(3), 526-34, Language: English, Database: MEDLINE

The available databases that catalogue information on traditional Chinese medicines are reviewed in terms of their content and utility for in-silico research on Chinese herbal medicines, as too are the various protein database resources, and the software available for use in such studies. The software available for bioinformatics and 'omics studies of Chinese herbal medicines are summarised, and a critical evaluation given of the various in-silico methods applied in screening Chinese herbal medicines, including classification trees, neural networks, support vector machines, docking and inverse docking algorithms. Recommendations are made regarding any future in-silico studies of Chinese herbal medicines.

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**2582. A review of Omics research in acupuncture: the relevance and future prospects for understanding the nature of meridians and acupoints**

By Jia Jun; Yu Yan; Deng Jia-Hui; Robinson Nicola; Bovey Mark; Cui Yun-Hua; Liu Hui-Rong; Ding Wei; Wu Huan-Gan; Wang Xiao-Min

*From* Journal of ethnopharmacology (2012), 140(3), 594-603, Language: English, Database: MEDLINE

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RELEVANCE: Acupuncture is an intrinsic part of traditional Chinese medicine. The current understanding of the acupuncture meridian system, acupoints and the potential utilizing Omics technologies are summarized in this review.

MATERIAL AND METHODS: A systematic search for acupuncture involving Omics technologies was carried out using multiple online literature databases. The records retrieved were from the full collections of each database dated to September 2011. Data produced from functional genomic technologies were extracted from the collected acupuncture/moxibustion studies and subjected to evaluation. Analyses and comments were summarized on the advances in experimental research in acupuncture/moxibustion-related studies, and the future for strategies and approaches in the era of functional genomics highlighted.

RESULTS: An overview of articles indicated that several diseases or symptoms with evidence of effectiveness had been piloted for using functional genomic technologies, such as Parkinson’s disease, allergic disorders, pain, and spinal cord injury, most of which are chronic “difficult diseases”. High-throughput genomic and proteomic profiling of gene expression in tissues has been able to identify potential candidates for the effects of acupuncture and provide valuable information toward understanding the possible mechanisms of the therapy. However, without further holistic and sophisticated analyses in the context of metabolomics and systems biology, the current attempts and the foreseeable developments appear to be insufficient to produce firm conclusions. Noticeably, the recent rapid advances in functional molecular imaging targeting specific metabolites have shown great promise and if combined with other post-genomic technologies, could be extremely helpful for the acupuncture studies in human subjects.

CONCLUSION: This review suggest that disease-oriented studies using the approach of multi-indexed high-throughput technologies and systems biology analyses will be a preferred strategy for future acupuncture/moxibustion research.

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2583. Syndrome differentiation in modern research of traditional Chinese medicine

By Jiang Miao; Lu Cheng; Zhang Chi; Yang Jing; Tan Yong; Lu Aiping; Chan Kelvin

Syndrome differentiation (Bian Zheng) in traditional Chinese medicine (TCM) is the comprehensive analysis of clinical information gained by the four main diagnostic TCM procedures: observation, listening, questioning, and pulse analysis, and it is used to guide the choice of treatment either by acupuncture and/or TCM herbal formulae, that is, Fufang. TCM syndrome differentiation can be used for further stratification of the patients' conditions with certain disease, identified by orthodox medical diagnosis, which could help the improvement of efficacy of the selected intervention. In modern TCM research it is possible to integrate syndrome differentiation with orthodox medical diagnosis leading to new scientific findings in overall medical diagnosis and treatment. In this review, the focus is to screen published evidence on the role of syndrome differentiation in modern TCM research with particular emphasis on basic and clinical research as well as, pharmacological evaluation of TCM herbal formulae for drug discovery.

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2584. Omics and its potential impact on R&D and regulation of complex herbal products

By Pelkonen Olavi; Pasanen Markku; Lindon John C; Chan Kelvin; Zhao Liping; Deal Greer; Xu Qihe; Fan Tai-Ping
From Journal of ethnopharmacology (2012), 140(3), 587-93, Language: English, Database: MEDLINE

In traditional Chinese medicine (TCM), multicomponent and principally plant-derived drugs are used for disease prevention, symptom amelioration and treatment in a personalized manner. Because of their complex composition and consequent multiple targets and treatment objectives, the application of omics techniques and other integrative approaches seems inherently appropriate and even necessary for the demonstration of their potential preclinical and clinical safety and efficacy. This perspectives article provides proposals for the application of omics methods to the investigation of complex herbal products (CHP), including Chinese herbal medicines (CHM), both in vitro and in vivo, for preclinical and clinical toxicity, pharmacokinetics, pharmacodynamics and efficacy tests. Ultimately, such approaches could aid regulatory scrutiny and potential acceptance, although currently there is no regulatory requirement of omics-based data in any submitted dossier to any regulatory agency, including for conventional drugs and CHP. However, it has been acknowledged that such studies are being increasingly performed, and almost surely will eventually be included into regulatory submission dossiers, possibly initially as supplementary materials. Specifically for CHM and CHP, omics can play a role both in determining product composition and its variability and in monitoring biological effects in carefully selected platforms. Predicting the future is difficult, but it seems possible that regulatory acceptance of omics techniques and a systems biology approach for the study of TCM, CHM and CHP will not be long delayed. It is expected that current studies and plans employing omics techniques and other integrative approaches will prove to be positive and informative.

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2585. A systematic review on use of Chinese medicine and acupuncture for treatment of obesity

By Sui Y; Zhao H L; Wong V C W; Brown N; Li X L; Kwan A K L; Hui H L W; Ziea E T C; Chan J C N

Obesity is a major health hazard and despite lifestyle modification, many patients frequently regain any lost body weight. The use of western anti-obesity drugs has been limited by side effects including mood changes, suicidal thoughts, and gastrointestinal or cardiovascular complications. The effectiveness and safety of traditional Chinese medicine including Chinese herbal medicine (CHM) and acupuncture provide an alternative established therapy for this medical challenge. In this systematic review, we used standard methodologies to search, review, analyse and synthesize published data on the efficacy, safety and relapse of weight regain associated with use of CHM and acupuncture. We also examined the rationale, mechanisms and potential utility of these therapies. A total of 12 electronic databases, including Chinese, English, Korean and Japanese, were searched up to 28 February 2010. Randomized controlled trials (RCTs) for CHM and/or acupuncture with comparative controls were considered. We used the Jadad scale to assess methodological qualities, the random effect model in the pooled analysis of therapeutic efficacy to adjust for heterogeneity and funnel plots to explore publication bias. After screening 2,545 potential articles from the electronic databases, we identified 96 RCTs; comprising of 49 trials on CHM treatment, 44 trials on acupuncture treatment and 3 trials on combined therapy for appraisal. There were 4,861 subjects in the treatment groups and 3,821 in the control groups, with treatment duration ranging from 2 weeks to 4 months. Of the 77 publications written in Chinese, 75 had a Jadad score <3, while 16 of the 19 English publications had a Jadad score of ≥3. Efficacy was defined as body weight reduction ≥ 2 kg or body mass index (BMI) reduction ≥ 0.5 kg/m(2).

Compared with placebo or lifestyle modification, CHM and acupuncture exhibited respective 'risk ratio' (RR) of 1.84 (95% CI: 1.37-2.46) and 2.14 (95% CI: 1.58-2.90) in favour of body weight reduction, with a mean difference in body weight reduction of 4.03 kg (95% CI: 2.22-5.85) and 2.76 kg (95% CI: 1.61-3.83) and a mean difference in BMI reduction of 1.32 kg m(-2) (95% CI: 0.78-1.85) and 2.02 kg m(-2) (95% CI: 0.94-3.10), respectively. Compared with the pharmacological treatments of sibutramine, fenfluramine or orlistat, CHM and acupuncture exhibited an RR of 1.11 (95% CI: 0.96-1.28) and 1.14 (95% CI: 1.03-1.25) in body weight reduction, mean difference in body weight reduction of 0.08 kg (95% CI: -0.58 to 0.74) and 0.65 kg (95% CI: -0.61 to 1.91), and mean difference in BMI reduction of 0.18 kg m(-2) (95% CI: -0.39 to 0.75) and 0.83 kg m(-2) (95% CI: 0.29-1.37), respectively. There were fewer reports of adverse effects and relapses of weight regain in CHM intervention studies conducted in China than studies conducted outside China. CHM and acupuncture were more effective than placebo or lifestyle modification in reducing body weight. They had a similar efficacy as the Western anti-obesity drugs but with fewer reported adverse effects. However, these conclusions were limited by small sample size and low quality of methodologies.

~1 Citing

2586. Monascus purpureus-fermented products and oral cancer: a review

By Hsu Wei-Hsuan; Pan Tzu-Ming

Tobacco and alcohol consumption have been reported as major factors for the development of oral cancer. Edible fungi of the Monascus species have been used as traditional Chinese medicine in eastern Asia for several centuries. Monascus-fermented products have many functional secondary metabolites, including monacolin K, citrinin, ankaflavin, and monascin. In several recent studies performed in our laboratory, these secondary metabolites have shown anti-inflammatory, anti-oxidative, and anti-tumor activities. Many published studies have shown the efficacy of Monascus-fermented products in the prevention of numerous types of cancer. The current article discusses and provides evidence to support that Monascus-fermented metabolites may be developed as painting drugs for the mouth to prevent or cure oral carcinogenesis. This is a novel therapeutic approach focusing on tumor growth attenuation to improve patient survival and quality of life.

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2587. Polymeric micelles drug delivery system in oncology

By Gong Jian; Chen Meiwang; Zheng Ying; Wang Shengpeng; Wang Yitao
Polymeric micelles (PM) system, as an efficient drug carrier, has received growing scientific attention in recent years owing to its solubilization, selective targeting, P-glycoprotein inhibition and altered drug internalization route and subcellular localization properties. Seven PM formulations of anti-tumor drugs being evaluated in clinical trials are reviewed in this paper, in terms of formulation study, in vitro cytotoxicity, in vivo pharmacokinetics, anti-tumor efficacy and safety as well as clinical trials, to shed new light on the discovery of novel PM formulations. In these seven PM formulations, PM system was employed to overcome the issues of low water solubility, high toxicity and (or) multidrug resistance accompanied with the conventional formulation, which greatly hampered their clinical application. Those promising preclinical and clinical results combined with rapid advancement and intense multidisciplinary collaboration enable the extension of the PM system to traditional Chinese medicine, imaging agents, gene and combination agent deliveries as well as some other administration routes, which facilitate the clinical translation of the PM drug delivery system.

~0 Citings

2588. A systematic review of the effectiveness of qigong exercise in supportive cancer care
By Chan Cecilia L W; Wang Chong-Wen; Ho Rainbow T H; Ng Siu-Man; Chan Jessie S M; Ziea Eric T C; Wong Vivian C’W
From Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer (2012), 20(6), 1121-33, Language: English, Database: MEDLINE
PURPOSE: Qigong as a complementary and alternative modality of traditional Chinese medicine is often used by cancer patients to manage their symptoms. The aim of this systematic review is to critically evaluate the effectiveness of qigong exercise in cancer care. METHODS: Thirteen databases were searched from their inceptions through November 2010. All controlled clinical trials of qigong exercise among cancer patients were included. The strength of the evidence was evaluated for all included studies using the Oxford Centre for Evidence-based Medicine Levels of Evidence. The validity of randomized controlled trials (RCTs) was also evaluated using the Jadad Scale. RESULTS: Twenty-three studies including eight RCTs and fifteen non-randomized controlled clinical trials (CCTs) were identified. The effects of qigong on physical and psychosocial outcomes were examined in 14 studies and the effects on biomedical outcomes were examined in 15 studies. For physical and psychosocial outcomes, it is difficult to draw a conclusion due to heterogeneity of outcome measures and variability of the results in the included studies. Among reviewed studies on biomedical outcomes, a consistent tendency appears to emerge which suggests that the patients treated with qigong exercise in combination with conventional methods had significant improvement in immune function than the patients treated with conventional methods alone. CONCLUSIONS: Due to high risk of bias and methodological problems in the majority of included studies, it is still too early to draw conclusive statements. Further vigorously designed large-scale RCTs with validated outcome measures are needed.

~1 Citing

2589. Guidelines for randomised controlled trials investigating Chinese herbal medicine
By Flower Andrew; Witt Claudia; Liu Jian Ping; Ulrich-Merzenich Gudrun; Yu He; Lewith George
UNLABELLED: ETHNOGRAPHIC RELEVANCE: Clinical trials investigating Chinese herbal medicine (CHM) have been frequently criticised for their lack of scientific rigour. As part of the GP-TCM project a team of experienced clinical researchers and CHM practitioners have developed clinical trial guidelines for CHM that combine an appreciation for traditional methods of practice with detailed and practical advice on research methodology. MATERIALS AND METHODS: This paper presents an executive summary of this work. It introduces the practice of CHM and the key considerations that need to be addressed whilst researching this traditional medical system. RESULTS: These guidelines emphasise the importance of identifying best practice, and then developing and applying appropriate and rigorous research methodologies to investigate CHM as a whole system. CONCLUSIONS: It is hoped that this will encourage a thoughtful and meticulous process of investigation that will clarify the contribution that CHM can make to our future healthcare. Innovative new approaches are considered including the application of the new "omic" technologies and systems biology as a way of enhancing our understanding of traditional practice.

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2590. P-glycoprotein and its inhibition in tumors by phytochemicals derived from Chinese herbs
P-glycoprotein belongs to the family of ATP-binding cassette (ABC) transporters. It functions in cellular detoxification, pumping a wide range of xenobiotic compounds, including anticancer drugs out of the cell. In cancerous cells, P-glycoprotein confers resistance to a broad spectrum of anticancer agents, a phenomenon termed multidrug resistance. An attractive strategy for overcoming multidrug resistance is to block the transport function of P-glycoprotein and thus increase intracellular concentrations of anticancer drugs to lethal levels. Efforts to identify P-glycoprotein inhibitors have led to numerous candidates, none of which have passed clinical trials with cancer patients due to their high toxicity. The search for naturally inhibitory products from traditional Chinese medicine may be more promising because natural products are frequently less toxic than chemically synthesized substances. In this review, we give an overview of molecular and clinical aspects of P-glycoprotein and multidrug resistance in the context of cancer as well as Chinese herbs and phytochemicals showing inhibitory activity towards P-glycoprotein.

2591. Meta-analysis of the clinical effectiveness of traditional Chinese medicine formula Chaihu-Shugan-San in depression

By Wang Yang; Fan Rong; Huang Xi
From Journal of ethnopharmacology (2012), 141(2), 571-7, Language: English, Database: MEDLINE

AIM OF STUDY: Depression is a psychiatric disorder. Chaihu-Shugan-San (CSS) is a traditional Chinese medicine formula suggested in the treatment of depression, but its effectiveness and safety are not well defined. This meta-analysis aimed to assess the effectiveness and safety of CSS in depression therapy. MATERIALS AND METHODS: The databases including MEDLINE, EMBASE, Cochrane Central Register of Controlled Trials, CNKI database, Wanfang Data and VIP Information were searched. Papers were reviewed systematically by two researchers and were analyzed using Cochrane software Revman 5.0. RESULTS: Ten randomized controlled trials comparing 835 subjects were included. Of these studies, seven studies used fluoxetine (20 mg, once a day), two used paroxetine (20 mg, once a day) and one used doxepin (25 mg, two times a day) as the antidepressant drugs. Meta-analyses revealed that CSS in combination with antidepressant drugs treatment significantly improved depressive symptoms (WMD=-3.56; 95% CI -5.09 to -2.03) and significantly increased effective rate (OR=3.31; 95% CI 1.80-6.10) and recovery rate (OR=2.32; 95% CI 1.61-3.34) compared with antidepressant drugs therapy. In addition, the efficacy of CSS as monotherapy was significantly better than antidepressants in improving depressive symptoms (WMD=-3.09; 95% CI -5.13 to -1.06) and in creasing effective rate (OR=2.61; 95% CI 1.23-5.53). CSS was comparable to antidepressants in increasing recovery rate (OR=1.83; 95% CI 0.84-3.98). No serious adverse events were reported in any of the included trials. CONCLUSION: The present work supported that CSS was effective and safe in treating depressed patients. More full-scale randomized clinical trials with reliable designs are recommended to further evaluate the clinical benefit and long-term effectiveness of CSS for the treatment of depression.

2592. 'Omic' genetic technologies for herbal medicines in psychiatry

By Sarris Jerome; Ng Chee Hong; Schweitzer Isaac

The field of genetics, which includes the use of 'omic' technologies, is an evolving area of science that has emerging application in phytotherapy. Omic studies include pharmacogenomics, proteomics and metabolomics. Herbal medicines, as monotherapies, or complex formulations such as traditional Chinese herbal prescriptions, may benefit from omic studies, and this new field may be termed 'herbomics'. Applying herbomics in the field of psychiatry may provide answers about which herbal interventions may be effective for individuals, which genetic processes are triggered, and the subsequent neurochemical pathways of activity. The use of proteomic technology can explore the differing epigenetic effects on neurochemical gene expression between individual herbs, isolated constituents and complex formulae. The possibilities of side effects or insufficient response to the herb can also be assessed via pharmacogenomic analysis of polymorphisms of cytochrome P450 liver enzymes or P-glycoprotein. While another novel application of omic technology is for the validation of the concept of synergy in individual herbal extracts and prescriptive formulations. Chronic administration of psychotropic herbal medicines may discover important effects on chromatin remodelling via modification of histone and DNA methylation. This paper focuses on the emerging field of herbomics, and is to our knowledge the first publication to explore this in the area of psychiatry.
2593. An integrative approach of linking traditional Chinese medicine pattern classification and biomedicine diagnosis

By Lu Aiping; Jiang Miao; Zhang Chi; Chan Kelvin


Traditional Chinese medicine (TCM) is a medical system with over 3000 years of continuous practice experience and refinement through treatment observations. The TCM pattern classification (also defined as Syndrome or Zheng differentiation) and treatment of ill health is the basis and the key concept of the TCM theory. All diagnostic and therapeutic methods in TCM are based on the differentiation of TCM pattern. TCM pattern can be considered as the TCM theoretical interpretation of the symptom profiles. Pattern classification is often used as a guideline in disease classification in TCM practice and has been recently incorporated with biomedical diagnosis, resulting in the increasing research interest of TCM pattern among various disciplines of integrative medicine. This paper describes the historical evolution on the integration of the TCM pattern classification and disease diagnosis in biomedicine, the methodology of pattern classification for diseases, efficacy of TCM practice with integration of TCM pattern classification and biomedical disease diagnosis, and the biological basis of TCM pattern. TCM pattern classification, which may lead to new findings in biological sciences, was also discussed.

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2594. Effects of Tai Chi exercise on physical and psychological health of older people

By Blake Holly; Hawley Helen


Tai Chi is a traditional Chinese form of conditioning exercise derived from martial arts and rooted in eastern philosophy and Chinese Medicine. Based on the inter-relatedness of mind, body and spirit, this form of exercise focuses on producing an inner calmness which is thought to have both physical and psychological therapeutic value. This article provides a brief overview of selected current evidence examining the relationship between Tai Chi and physical, neurocognitive and psychosocial outcomes in older people. This is an emerging and growing area of research and improvements have often been reported in health functioning, physical and emotional health, reducing falls, fear of falling and risk of falls, and possibly enhancing cardiovascular functioning in older adults although the effects on bone density, cognitive and immunological functioning are less clear. Results overall are inconsistent and health improvements have not been evident in all studies. Tai Chi is becoming increasingly popular in practice, and more recent evidence is emerging which is based on experimental and longitudinal designs, although many of the proposed benefits of Tai Chi are yet to be validated in large, randomised controlled trials.

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2595. Comprehension of the unique characteristics of traditional Chinese medicine

By Xutian Stevenson; Cao Dongyi; Wozniak JoAnn; Junion John; Boisvert Johanne


Traditional Chinese Medicine (TCM) has made great contributions to human history, especially in China, as has been recorded for thousands of years. The characteristics of TCM in both theory and practice make it different from Conventional Western Medicine (CWM). The characteristics of TCM include phenomenological, philosophical, and methodological aspects. This paper briefly discusses some historical turning points and innovations in TCM development in China, explores human body enigmas such as the heart, compares different aspects of TCM and CWM, and identifies the unique characteristics of TCM treatment, as compared to other medical systems.

~0 Citings

2596. Chinese medicinal herbs for sore throat
2597. Emerging approaches of traditional Chinese medicine formulas for the treatment of hyperlipidemia

By Xie Weidong; Zhao Yunan; Du Lijun

ETHNOPHARMACOLOGICAL RELEVANCE: Traditional Chinese medicine (TCM) formulas have been widely used in China since ancient times to treat certain diseases (e.g., phlegm, dampness and blood stasis). Recently, the effects of these medicines have been increasingly demonstrated to be helpful for hyperlipidemic patients. AIM OF THE STUDY: This manuscript aims to describe the scientific evidence for the efficacy of TCM and attempts to identify potential TCM formulas for treating hyperlipidemia. MATERIALS AND METHODS: TCM formulas approved by the State Food and Drug Administration of China (SFDA) were sourced from the official SFDA website (http://www.sda.gov.cn/). Human and animal evidence for the hypolipidemic effects of herbs from TCM formulas were reviewed via the internet (Elsevier, ACS, Wiley Online Library, SpringerLink, PubMed, Web of Science, CNKI, Baidu, and Google) and libraries up to October 31, 2011. RESULTS: More than 50 TCM formulas have been used to treat hyperlipidemia. These herbs can primarily be grouped into three categories: (1) herbs promoting excretions, generally by reducing food retention, enhancing purgative effects, and promoting diuresis and choleretic effects, e.g., Fructus Crataegi, Radix Polygoni Multiflori, Semen Cassiae, and Radix et Rhizoma Rhei; Rhizoma alismatis, and Herba Artemisiae Scopariae; (2) herbs acting on the cardiovascular system, generally by improving blood circulation based on TCM theories, e.g., Radix Salviae Miltiorrhizae, Radix Puerariae, Rhizoma Chuanxiong, Flos Carthami, and Folium Nelumbinis; and (3) herbs that have tonic effects, e.g., Fructus Lycii, Radix Ginseng, and Radix Astragali. CONCLUSIONS: Three basic approaches, including excretory function enhancement, cardiovascular system improvement, and tonic effect reinforcement, are emerging among TCM formulas for the treatment of hyperlipidemia. These approaches may be useful in controlling blood lipid levels, preventing cardiovascular complications, and adjusting bodily functions in hyperlipidemic patients. However, solid evidence of the efficacy of these treatments is required.
Cancer research of Chinese medicine has formed some major fields, such as supporting healthy qi, heat clearing-detoxification and eliminating stasis-activating blood, and has made certain achievements. The "theory of anti-tumor effect with wind medicine" described the anti-tumor effects of wind medicine from a new view. In this review, and the relevant research was analyzed comprehensively. The mechanism and superiority of the anti-tumor effect of wind medicine was summarized, and the research problems was also discussed.

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2599. Research progress of Chinese herbal medicine and traditional Chinese medicine resulting in liver injury
By Wang Jingli; Zhou Chaofan

The adverse reactions caused by Chinese herbal medicine and traditional Chinese medicine are reported increased in recent years, among which the acute liver injury caused by Chinese herbal medicine accounts for 21.5% of total liver injuries. Despite the misuse of traditional Chinese medicine not in accordance with differentiation of symptoms and signs, the adverse reaction of Chinese herbal medicine itself can't be little to these adverse events. The paper summarizes the most common categories of traditional Chinese medicine resulting in liver injury, the mechanism, pathological characteristics, clinical symptom of liver injury, the reasons of the reaction and how to prevent. The research aims to enhance the clinical physician recognition of liver injury caused by Chinese herbal medicine, in order to ensure the safe and rational usage of traditional Chinese medicine.

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2600. Studies on anti-EV71 virus activity of traditional Chinese medicine and its clinical application in treatment of HFMD
By Xue Bailin; Yao Zhihong; Yu Rongmin

Hand-foot-and-mouth disease is caused by intestinal virus infection. The viruses coxsackie A16 (CA16) and enterovirus 71 (EV71) are the main pathogens. Between them, the virus EV71 is more dangerous and easier to cause serious complications, which leads to death or disability. Currently, there are no effective antiviral drugs to treat EV71 infection. Therefore, developing an effective drug against EV71 virus activity is significant. It has a huge potency of screening the anti-EV71 components and developing the new drugs from the abundant traditional Chinese medicines (TCMs). Meanwhile, since hand-foot-and-mouth disease spread in Shanghai in 1981, a growing number of reports on TCMs treatment in clinic have been published. In addition, most of treatments with various ways are effective, which play a positive role on improving clinic treatment and controlling diseases. Moreover, special clinic advantages and features of TCMs were obviously shown.

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2601. An updated review of the efficacy of cupping therapy
By Cao Huijuan; Li Xun; Liu Jianping
From PloS one (2012), 7(2), e31793, Language: English, Database: MEDLINE
BACKGROUND: Since 1950, traditional Chinese medicine (TCM) cupping therapy has been applied as a formal modality in hospitals throughout China and elsewhere in the world. Based on a previous systematic literature review of clinical studies on cupping therapy, this study presents a thorough review of randomized controlled trials (RCTs) to evaluate the therapeutic effect of cupping therapy. METHOD: Six databases were searched for articles published through 2010. RCTs on cupping therapy for various diseases were included. Studies on cupping therapy combined with other TCM treatments versus non-TCM therapies were excluded. RESULTS: 135 RCTs published from 1992 through 2010 were identified. The studies were generally of low methodological quality. Diseases for which cupping therapy was commonly applied were herpes zoster, facial paralysis (Bell palsy), cough and dyspnea, acne, lumbar disc herniation, and cervical spondylitis. Wet cupping was used in most trials, followed by retained cupping, moving cupping, and flash cupping. Meta-analysis showed cupping therapy combined with other TCM treatments was significantly superior to other treatments alone in increasing the number of cured patients with herpes zoster, facial paralysis, acne, and cervical spondylitis. No serious adverse effects were reported in the trials. CONCLUSIONS: Numerous RCTs on cupping therapy have been conducted and published during the past decades. This review showed that cupping has potential effect in the treatment of herpes zoster and other specific conditions. However, further rigorously designed trials on its use for other conditions are warranted.

2602. Panax ginseng, Rhodiola rosea and Schisandra chinensis
By Chan Shun-Wan
From International journal of food sciences and nutrition (2012), 63 Suppl 175-81, Language: English, Database: MEDLINE

Panax ginseng (Ginseng), Rhodiola rosea (Hong Jing Tian) and Schisandra chinensis (Wu Wei Zi) are well-known herbs in traditional Chinese medicine (TCM). Recently, there have been a number of studies on these three herbs. This review discusses their active components and major pharmacological effects. For P. ginseng, it has been shown to have an anti-inflammatory activity, affects pulmonary function and erectile dysfunction, improves cognition in patients with Alzheimer’s disease and promotes sexual arousal in menopausal women as well as prevents cancer. For R. rosea, its effectiveness in alleviating depression and reducing fatigue is summarized in this review. Additionally, anti-cancer and other clinical effects of S. chinensis are also discussed. These three herbs are considered as adaptogens as they bear multiple functions and their effects were found to be very different in patients depending on the circumstances (age, gender, environment, diet, season, etc.). Thus, in most cases, the art of the TCM practitioner is to prescribe these herbs after a complete evaluation of overall health status of the patients.

2603. The influence of PC6 on cardiovascular disorders: a review of central neural mechanisms
By Li Jia; Li Jing; Chen Zebin; Liang Fengxia; Wu Song; Wang Hua

PC6 is a classic acupuncture point in traditional Chinese medicine. It is considered to be effective when treating cardiovascular disorders. In the present review the authors have focused on the neurophysiological bases of the effects of PC6 stimulation on cardiovascular mechanisms. Experimental studies have shown that the hypothalamic rostral ventrolateral medulla, arcuate nucleus and ventrolateral periaqueductal gray are involved in acupuncture attenuation of sympathoexcitatory cardiovascular reflex responses. This long-loop pathway also appears to contribute to the long-lasting, acupuncture-mediated attenuation of sympathetic premotor outflow and excitatory cardiovascular reflex responses. Acupuncture of PC6 modulates the activity in the cardiovascular system, an effect that may be attributed to attenuation of sympathoexcitatory cardiovascular reflex responses.

2604. New idea of treatment of heart failure with traditional Chinese medical
By Ma Yanyan; Zhang Meng; Ma Shuhua; Wang Yumin; Gao Junhong; Wang Hongxin; Yu Xiaochun
To discuss the potential role of medicinal herbs, especially those with effect of strengthening Qi, in the treatment of chronic heart failure (CHF) via modulating myocardial substrate metabolism. The relationships among heart failure, myocardial energetic metabolism and herbal medicine were analyzed in detail through reviewing and summarizing the accumulating knowledge and recent findings on myocardial metabolism, heart failure and herbal medicine. Either energy lack or abnormal energetic metabolism is one of the main causes to the initiation and development of heart failure. Recent studies suggest that the cardiac function in the patients with CHF could be improved by inhibiting the energy production from metabolism of fatty acid and enhancing the energy production from glucose metabolism. The concept of Qi in Chinese medicine is very close to the energy in western medicine. The decoction of Chinese medicine containing herbal medicine with effect of strengthening Qi and the herbal medicine themselves and their components were evidenced to be effective in improvement of heart failure and regulation of both lipid and glucose metabolism; more importantly, all these herbal medicine contain the multi-sugar which can be metabolized into single unit of sugar which may be metabolized as a substrate by myocardium and potentially produce the cardioprotective effect. Therefore, we may find out a novel way to explain why the herbal medicine with effect of strengthening Qi can improve cardiac function in patients with CHF. In other words, regulating myocardial metabolism is one of the mechanisms underlying the cardioprotection produced by herbal medicine with effect of strengthening Qi in the treatment of heart failure.

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2605. Advances in structural modifications and biological activities of berberine: an active compound in traditional Chinese medicine
By Huang Z-J; Zeng Y; Lan P; Sun P-H; Chen W-M
From Mini reviews in medicinal chemistry (2011), 11(13), 1122-9, Language: English, Database: MEDLINE
Berberine is an isoquinoline alkaloid isolated from Chinese herbs such as Coptidis Rhizome. This paper is a systematic review of the structural modifications of berberine for different biological activities such as antitumor, antimicrobial, anti-Alzheimer's disease, antihyperglycemic, anti-inflammatory and antimalaria. The current review would provide some useful information for further studies on structural modification of berberine for discovering new drug leads.

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2606. Methodological implications of nonlinear dynamical systems models for whole systems of complementary and alternative medicine
By Bell Iris R; Koithan Mary; Pincus David
This paper focuses on the worldview hypotheses and research design approaches from nonlinear dynamical complex systems (NDS) science that can inform future studies of whole systems of complementary and alternative medicine (WS-CAM), e.g., Ayurveda, traditional Chinese medicine, and homeopathy. The worldview hypotheses that underlie NDS and WS-CAM (contextual, organismic, interactive-integrative - Pepper, 1942) overlap with each other, but differ fundamentally from those of biomedicine (formistic, mechanistic). Differing views on the nature of causality itself lead to different types of study designs. Biomedical efficacy studies assume a simple direct mechanistic cause-effect relationship between a specific intervention and a specific bodily outcome, an assumption less relevant to WS-CAM outcomes. WS-CAM practitioners do not necessarily treat a symptom directly. Rather, they intervene to modulate an intrinsic central imbalance of the person as a system and to create a more favorable environmental context for the emergence of health, e.g., with dietary changes compatible with the constitutional type. The rebalancing of the system thereby fosters the emergence of indirect, diffuse, complex effects throughout the person and the person's interactions with his/her environment. NDS theory-driven study designs thus have the potential for greater external and model validity than biomedically driven efficacy studies (e.g., clinical trials) for evaluating the indirect effects of WS-CAM practices. Potential applications of NDS analytic techniques to WS-CAM include characterizing different constitutional types and documenting the evolution and dynamics of whole-person healing and well-being over time. Furthermore, NDS provides models and methods for examining interactions across organizational scales, from genomic/proteomic/metabolomic networks to individuals and social groups.

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2607. Fighting fire with fire: poisonous Chinese herbal medicine for cancer therapy

By Wang Shengpeng; Wu Xu; Tan Miao; Gong Jian; Tan Wen; Bian Baolin; Chen Meiwan; Wang Yitao


ETHNOPHARMACOLOGICAL RELEVANCE: Following the known principle of "fighting fire with fire", poisonous Chinese herbal medicine (PCHM) has been historically used in cancer therapies by skilled Chinese practitioners for thousands of years. In fact, most of the marketed natural anti-cancer compounds (e.g., camptothecin derivatives, vinca alkaloids, etc.) are often known in traditional Chinese medicine (TCM) and recorded as poisonous herbs as well. Inspired by the encouraging precedents, significant researches into the potential of novel anticancer drugs from other PCHM-derived natural products have been ongoing for several years and PCHM is increasingly being recognized as a gathering place for promising anti-cancer drugs. The present review aimed at giving a rational understanding of the toxicity of PCHM and, especially, providing the most recent developments on PCHM-derived anti-cancer compounds.

MATERIALS AND METHODS: Information on the toxicity and safety control of PCHM, as well as PCHM-derived anti-cancer compounds, was gathered from the articles, books and monographs published in the past 20 years.

RESULTS: Based on an objective introduction to the CHM toxicity, we clarified the general misconceptions about the safety of CHM and summarized the traditional experiences in dealing with the toxicity. Several PCHM-derived compounds, namely gambogic acid, triptolide, arsenic trioxide, and cantharidin, were selected as representatives, and their traditional usage and mechanism of anti-cancer actions were discussed.

CONCLUSIONS: Natural products derived from PCHM are of extreme importance in devising new drugs and providing unique ideas for the war against cancer. To fully exploit the potential of PCHM in cancer therapy, more attentions are advocated to be focused on their safety evaluation and mechanism exploration.

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Idiopathic semen quality abnormalities include idiopathic oligozoospermia, asthenospermia, teratospermia, azoospermia and idiopathic abnormal semen liquefaction. The possible causes of idiopathic semen quality abnormality include age, non-inflammatory function changes of subsidiary gonadal organs, infection, genetic abnormalities, sperm mitochondrial changes, effects of environmental pollutants, and subtle hormonal changes. The diagnosis of idiopathic oligozoospermia, asthenospermia, teratospermia and azoospermia require detailed inquiry of the case history, physical examination, semen analysis, determination of reproductive hormones, genetic and immunological examinations, and so on, to exclude possible known causes. The treatment of idiopathic oligozoospermia, asthenospermia, and teratospermia may involve the use of Western medicines, such as clomiphene citrate, tamoxifen, recombinant FSH, Andriol, compound zinc and selenium, L-carnitine, recombinant growth hormone and pentoxifylline, the application of traditional Chinese drugs, or the combination of traditional Chinese and Western medicine. Idiopathic azoospermia can be treated by assisted reproductive technology based on the medication of spermatogenesis-promoting drugs, and idiopathic abnormal semen liquefaction can be managed with traditional Chinese drugs, integrated traditional Chinese and Western medicine, or in vitro semen processing technology. With the development of diagnostic technology, it is expected that more specific therapeutic methods will be established for idiopathic semen quality abnormalities and their incidence will be reduced.

~0 Citings

2611. Traditional Chinese Medicine for cancer-related symptoms

By Smith Mary Elizabeth; Bauer-Wu Susan
From Seminars in oncology nursing (2012), 28(1), 64-74, Language: English, Database: MEDLINE

OBJECTIVE: To familiarize oncology nurses about the theory and research related to Traditional Chinese Medicine (TCM) for management of cancer-related symptoms. DATA SOURCES: Peer-reviewed journal articles, TCM texts, professional experience. CONCLUSION: The increasing integration of TCM into mainstream medicine mandates that oncology professionals be familiar with the benefits as well as risks. Clinical research on acupuncture in cancer care is growing and demonstrates it is safe for cancer patients, although results on efficacy across symptoms have been mixed. IMPLICATIONS FOR NURSING PRACTICE: Informed oncology nurses can assist patients by making appropriate referrals to licensed acupuncturists and qualified TCM practitioners to help alleviate unpleasant symptoms associated with cancer and conventional cancer treatment.

~0 Citings

2612. Applied modern biotechnology for cultivation of Ganoderma and development of their products

By Zhou Xuan-Wei; Su Kai-Qi; Zhang Yong-Ming
From Applied microbiology and biotechnology (2012), 93(3), 941-63, Language: English, Database: MEDLINE

A white-rot basidiomycete Ganoderma spp. has long been used as a medicinal mushroom in Asia, and it has an array of pharmacological properties for immunomodulatory activity. There have been many reports about the bioactive components and their pharmacological properties. In order to analyze the current status of Ganoderma products, the detailed process of cultivation of Ganoderma spp. and development of their products are restated in this review article. These include the breeding, cultivating, extracting bioactive component, and processing Ganoderma products, etc. This article will expand people’s common knowledge on Ganoderma, and provide a beneficial reference for research and industrial production.

~0 Citings

2613. Review of traditional Chinese medicine external applications to treat chemistry phlebitis

By Sha Sha; Liu Weigun; Cheng Lushan; Ge Jinjin

This article reviewed the literatures in this area over the past 5 years according to three parts: simple traditional Chinese medicine external application, combination of traditional Chinese medicine and Western medicine, combination of traditional Chinese medicine and physical therapy, and came to several effective prescriptions.

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2614. Mechanism of traditional Chinese medicine on animal model of Parkinson's disease

By Wu Bin; Zhao Shuzhi; Wang Xiumin; Dong Qiqian; Zheng Guoqing

Parkinson's disease (PD) is a common degenerative disease of the central nervous system, but no drug has been found to be surely able to protect neurons so far, delay onset or slow progression of the disease. Currently there are a variety of Chinese formulas, single herb medicines, active fractions and monomers showed prophylactic and therapeutic effect on PD animal models. The mechanisms include protection of substantia nigra cells, improvement of neurotransmitter content, anti-oxidation, immune regulation, enhancement of Western medicine efficacy, reduction of side effects, etc. All these mechanisms may play integrated effect and slow disease progression. In particular, Chinese medicine compound may have some advantages in neuroprotective treatment of PD, because a variety of active ingredients can exert multi-links, multi-levels and multi-targets integrated regulation effect on human body. However, the level and standard of Chinese medicine studies on PD animal still need to be improved.

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2615. Herbal medicine in the treatment of ulcerative colitis

By Ke Fei; Yadav Praveen Kumar; Ju Liu Zhan

Ulcerative colitis (UC) is a refractory, chronic, and nonspecific disease occurred usually in the rectum and the entire colon. The etiopathology is probably related to dysregulation of the mucosal immune response toward the resident bacterial flora together with genetic and environmental factors. Several types of medications are used to control the inflammation or reduce symptoms. Herbal medicine includes a wide range of practices and therapies outside the realms of conventional Western medicine. However, there are limited controlled evidences indicating the efficacy of traditional Chinese medicines, such as aloe vera gel, wheat grass juice, Boswellia serrata, and bovine colostrum enemas in the treatment of UC. Although herbal medicines are not devoid of risk, they could still be safer than synthetic drugs. The potential benefits of herbal medicine could lie in their high acceptance by patients, efficacy, relative safety, and relatively low cost. Patients worldwide seem to have adopted herbal medicine in a major way, and the efficacy of herbal medicine has been tested in hundreds of clinical trials in the management of UC. The evidences on herbal medicines are incomplete, complex, and confusing, and certainly associated with both risks and benefits. There is a need for further controlled clinical trials of the potential efficacy of herbal medicine approaches in the treatment of UC, together with enhanced legislation to maximize their quality and safety.

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2616. Alternative and complementary treatment for food allergy

By Wisniewski Julia Ann; Li Xiu-Min
From Immunology and allergy clinics of North America (2012), 32(1), 135-50, Language: English, Database: MEDLINE

Despite increased consumer interest in complementary and alternative medicine (CAM) for the treatment of food allergy, there remains a relative paucity of knowledge regarding the clinical efficacy, mechanisms of action, and safety of most CAM treatments available to consumers. This article focuses on recent advances in CAM for food allergy, including acupuncture, herbal medicine, probiotics, and alternative approaches to allergen immunotherapy. The mechanism of action of several novel approaches to treatment of food allergy is reviewed, but FAHF-2 is the only investigational herbal formulation currently validated for use in human clinical trials.

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2617. Research progress of salvianolic acid A
Salvianolic acid A is a water-soluble component from Danshen, which is frequently used in traditional Chinese medicine. High performance liquid chromatography was often used to analyze content of salvianolic acid A. The yield of salvianolic acid A increased by the technological improvement of extraction and separation. Salvianolic acid A possessed multiple pharmacological activities, including antioxidants, myocardial ischemic protection, antithrombatic, neuroprotection, anti fibrosis, prevention of diabetes and complications. Recently, preliminary pharmacokinetics characteristics of salvianolic acid A were clarified. Based on the research literature and study work from author's laboratory, this review will focus on recent developments concerning the chemistry, pharmacology and pharmacokinetic of salvianolic acid A, and prospect further research.
Spinal cord injury (SCI) is a very severe traumatic disease of the central nervous system (CNS). Because of its high incidence rate in causing disabilities, it brings great burdens to patients and society. Both Traditional Chinese Medicine (TCM) and Western Medicine have been adopted to ameliorate SCI with promising outcomes. In TCM, the use of Governor Vessel electro-acupuncture has achieved remarkable results on the rehabilitation of patients with SCI. In the past decade, Governor Vessel electro-acupuncture has also been used in experimentally induced SCI and this has resulted in promising functional recovery. Both neural stem cells (NSCs) and bone marrow mesenchymal cells (MSCs) have been used extensively in recent years for improvement of functional recovery of CNS disorders. We have used a combined approach by integrating the basic and clinical research in SCI in recent years. In this connection, transplantation of NSCs or MSCs coupled with the Governor Vessel electro-acupuncture (GV-EA) has been adopted to improve the recovery of SCI. Our study suggests that GV-EA may activate the process of cell metabolism, and initiate synthesis and secretion of endogenous neurotrophic factors in the ambient tissues at the lesion site of spinal cord. It is proposed that the new combined strategy could promote a better structural and functional recovery of injured spinal cord.

~0 Citings

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2621. Traditional Chinese herbal medicine and cerebral ischemia

By Chen Yuh-Fung
From Frontiers in bioscience (Elite edition) (2012), 4809-17, Language: English, Database: MEDLINE

Stroke is an important cause of mortality and morbidity worldwide but effective therapeutic strategy for the prevention of brain injury in patients with cerebral ischemia is lacking. Although tissue plasminogen activator (t-PA) has been used to treat stroke patients, this therapeutic strategy is confronted with ill side effects and is limited to patients within 3 hours of a stroke. Stroke-mediated cell death is a complex interplay of aberrant events involving excitotoxicity, acidosis, inflammation, oxidative stress, peri-infarct depolarization, and apoptosis. Due to the complexity of the events and the disappointing results from single agent trials, the combination of thrombolytic therapy and effective neural protection therapy may be an alternative strategy for patients with cerebral ischemia. Traditional Chinese herbal medicine has been described in ancient medicine systems as a treatment for various ailments associated with stroke. Recently, there have been reports of its benefits in treating stroke. This review will focus on various traditional Chinese herbal medicines and their neuroprotective effects on cerebral ischemia.

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2622. Anti-depressant-like effect of peony: a mini-review

By Mao Qing-Qiu; Ip Siu-Po; Xian Yan-Fang; Hu Zhen; Che Chun-Tao
From Pharmaceutical biology (2012), 50(1), 72-7, Language: English, Database: MEDLINE

CONTEXT: Depression is a common psychiatric disorder, yet the clinical efficacy of antidepressant therapies is unsatisfactory. Thus, the search for new antidepressants continues, and natural products remain a promising source of new therapeutic agents. The root part of Paeonia lactiflora Pall. (Ranunculaceae), known as peony, is often used in Chinese herbal prescriptions for the treatment of depression-like disorders. OBJECTIVES: The objective of this review is to provide scientific evidence to support further research on peony as a potential anti-depressant drug. METHODS: This review summarizes the results obtained in our laboratory, together with other literature data obtained through a comprehensive search in databases including PubMed, ScienceDirect, Scirus, and Web of Science. RESULTS: The peony extract is active in the mouse forced swim test and tail suspension test, and it produces anti-depressant effects in chronic unpredictable mild stress-induced depression model in mice and rats. The anti-depressant mechanisms of peony are likely mediated by the inhibition of monoamine oxidase activity, neuro-protection, modulation of the function of hypothalamic-pituitary-adrenal axis, inhibition of oxidative stress, and the up-regulation of neurotrophins. CONCLUSIONS: Peony is used clinically to treat depression-like symptoms in Chinese medicine, and it has been shown to possess anti-depressant property in a battery of test models using laboratory animals. Its effect is likely mediated by multiple targets. Further studies are warranted to delineate the molecular mechanisms of action, determine the pharmacokinetics, establish the toxicological profile, and assess the potentials of peony in clinical applications. Identification of the clinically active ingredient(s) is also warranted.

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2623. Traditional Chinese medicine syndrome distribution in chronic hepatitis B populations: a systematic review

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Many patients with chronic hepatitis B (CHB) seek help from traditional Chinese medicine (TCM). TCM treatment is based on syndrome differentiation. This study aimed to investigate the syndrome distribution in populations of CHB patients. The pre-specific search strategy was set, and 93 studies (20,106 participants) were identified by electronic and hand searches. The methodological quality of included studies was assessed. Data on syndrome distribution and correlations between syndromes and severity of CHB were extracted and analyzed. Forty-seven syndromes were identified under 24 different syndrome diagnosis systems for CHB. The majority of included studies reported Liver Depression and Spleen Deficiency (LDSD) (52.54% of studies) or Liver-Gallbladder Dampness Heat (LGDH)/Dampness-Heat Obstructing Middle Energizer (DHME) (32.20%) as the major syndromes in CHB patients without cirrhosis. Pooled analysis revealed that LDSD and LGDH/DHME accounted for 61.19% of participants without cirrhosis. In addition, Liver-Kidney Yin Deficiency (LKYinD) (40.99%) and Spleen-Kidney Yang Deficiency (SKYangD) (40.43%) syndromes were common in patients with severe CHB. The percentage of patients with Blood Stasis syndrome increased as the disease progressed to cirrhosis (32.09%). To conclude, LDSD and LGDH/DHME syndromes are found in a significant majority of CHB patients, particularly in the early stages. LKYinD, SKYangD and Blood Stasis dominate in patients at more advanced stages. More epidemiological studies of high methodological quality on syndrome distribution in CHB and standardization of syndrome differentiation for CHB are required to confirm the trends indicated by the studies reviewed here; confirming these trends can increase the efficacy of treatment and give guidance to doctors.

OBJECTIVES: our study had two objectives: a) to systematically identify all existing systematic reviews of Chinese herbal medicines (CHM) published in Cochrane Library; b) to assess the methodological quality of included reviews.

METHODOLOGY/PRINCIPAL FINDINGS: We performed a systematic search of the Cochrane Database of Systematic Reviews (CDSR, Issue 5, 2010) to identify all reviews of CHM. A total of fifty-eight reviews were eligible for our study. Twenty-one of the included reviews had at least one Traditional Chinese Medicine (TCM) practitioner as its co-author. 7 reviews didn’t include any primary study, the remaining reviews (n = 51) included a median of 9 studies and 936 participants. 50% of reviews were last assessed as up-to-date prior to 2008. The questions addressed by 39 reviews were broad in scope, in which 9 reviews combined studies with different herbal medicines. For OQAQ, the mean of overall quality score (item 10) was 5.05 (95% CI; 4.58-5.52). All reviews assessed the methodological quality of primary studies, 16% of included primary studies used adequate sequence generation and 7% used adequate allocation concealment. Of the 51 nonempty reviews, 23 reviews were reported as being inconclusive, while 27 concluded that there might be benefit of CHM, which was limited by the poor quality or inadequate quantity of included studies. 58 reviews reported searching a median of seven electronic databases, while 10 reviews did not search any Chinese database. CONCLUSIONS: Now CDSR has included large numbers of CHM reviews, our study identified some areas which could be improved, such as almost half of included reviews did not have the participation of TCM practitioners and were not up-to-date according to Cochrane criteria, some reviews pooled the results of different herbal medicines and ignored the searching of Chinese databases.
2626. Toxocities by herbal medicines with emphasis to traditional Chinese medicine

By Efferth Thomas; Kaina Bernd

It is estimated that three quarters of the world population rely on herbal and traditional medicine as a basis for primary health care. Therefore, it is one of the most important and challenging tasks for scientists working in drug research to investigate the efficacy of herbal medicine, to dissect favorable from adverse effects, to identify active principles in medicinal plants and to ban poisonous plants or contaminations from herbal mixtures. In the present review, some problems are critically discussed. Botanical misidentification or mislabeling of plant material can play a role for toxic reactions in humans. Some plant descriptions in traditional herbal medicine (e.g. traditional Chinese medicine) have changed over time, which may lead to unintended intoxication by using wrong plants. A problem is also the contamination of herbs with microorganisms, fungal toxins such as aflatoxin, with pesticides and heavy metals. Unprofessional processing, which differs from safe traditional preparation represents another potential source for herbal poisoning. Unwanted effects of herbal products may also develop by the interaction of herbs with conventional drugs upon concomitant intake. The art of herbal medicine is to dissect pharmacologically and therapeutically valuable herbal drugs from harmful and toxic ones and to develop combinations of medicinal plants as safe and efficient herbal remedies. Standardization and strict control measures are necessary to monitor sustainable high quality of herbal products and to exclude contaminations that badly affect patients consuming herbal medicine.

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2627. Ultra-performance liquid chromatography coupled to mass spectrometry as a sensitive and powerful technology for metabolomic studies

By Wang Xijun; Sun Hui; Zhang Aihua; Wang Ping; Han Ying

Metabolomics is the comprehensive assessment of endogenous metabolites of a biological system. These large-scale analyses of metabolites are intimately bound to advancements in ultra-performance liquid chromatography-electrospray (UPLC) technologies and have emerged in parallel with the development of novel mass analyzers and hyphenated techniques. Recently, the combination of UPLC with MS covers a number of polar metabolites, thus enlarging the number of detected analytes in the widely used separation sciences. This technology has rapidly been accepted by the analytical community and is being gradually applied to various fields such as metabolomics and traditional Chinese medicine (TCM). Given the power of the technology, metabolomics has become increasingly popular in drug development, molecular medicine, traditional medicine and other biotechnology fields, since it profiles directly the phenotype and changes thereof in contrast to other "-omics" technologies. Hyphenated UPLC/MS technique is becoming a useful tool in the study of body fluids, represents a promising hyphenated microseparation platform in metabolomics and has a strong potential to contribute to disease diagnosis. This review describes the applications of UPLC/MS in metabolomic research, and comparison role of HPLC/MS, NMR and GC/MS, highlights its advantages and limitations with certain characteristic examples in the life and TCM sciences.

~0 Citings

2628. Initiating Hehe [see text] medical system of traditional Chinese medicine and biomedicine to realize health cycle of human beings

By Wang Jie-Hua
From Chinese journal of integrative medicine (2011), 17(12), 945-9, Language: English, Database: MEDLINE

This paper suggests a novel approach concerning the medical treatment of human beings, which appears to be economically and practically superior to either biomedicine or traditional medicine. A brand new medical system-Hehe [see text] medicine, has been proposed based on a preventive-biomedical-psycho-social treatment model. This is characterized by a dual approach in which life nurturing is consistently practised and medical treatment is applied when necessary in order to maintain a healthy life. Its core value would facilitate the self-restoration to health and self-adaptation to nature through health cultivation and medical means. Medical services would be firstly provided to the prevention of potential disease germinating in the human body, and clinical medical treatment would be the last resort of systematic medical practice. This paper discusses not only this new concept but also the advantages of traditional Chinese medicine and biomedicine, especially how both medical systems compare in cognitive style, on a cultural level, and on a technical level.
2629. Chinese medicine for menopausal syndrome: current status, problems and strategies

By Wang Xiao-Yun; Nie Guang-Ning; Yang Hong-Yan; Zong Li-Li

The use of Chinese medicine (CM) for the management of menopausal syndrome is considered effective both at home and abroad, and more and more clinical studies are confirming its efficacy. However, many problems still exit in current studies, such as the standard of CM syndrome differentiation, the design methodology and criteria to assess the quality of clinical trials and the efficacy of interventions. In this paper, the authors present the CM research and treatment strategies for menopausal syndrome with concepts explaining the CM understanding of the mechanism of the disorder. It is concluded that CM is effective for menopausal syndrome, but improvement in both study methodology and treatment strategy is needed. In detail, it is firstly necessary to conduct clinical studies to evaluate the difference of various CM treatments for menopausal syndrome manifesting different symptoms, so as to establish a comprehensive treatment protocol of CM. Secondly, an acknowledged evaluation system needs to be founded, which embodies the characteristics of CM, and covers appropriate endpoint indices and parameters to objectively evaluate the effect and study quality of CM. Finally, an epidemiological survey with large sample size should be implemented with robust statistical design and CM expertise to collect data for establishing diagnostic criteria for menopause in different stages and with different symptoms.

2630. Chemical, pharmacological, and biological characterization of the culinary-medicinal honey mushroom, Armillaria mellea (Vahl) P. Kumm. (Agaricomycetidae): a review

By Muszynska Bozena; Sulkowska-Ziaja Katarzyna; Wolkowska Malgorzata; Ekiert Halina

Recently, studies have been conducted on the chemical composition of fruiting bodies of the culinary-medicinal Honey mushroom, Armillaria mellea (Vahl.) P. Kumm. (higher Basidiomycetes). It is considered in Europe and Asia as edible and medicinal, when appropriately prepared, and has demonstrated the presence of different groups of organic compounds, including carbohydrates, sterols, sphingolipids, fatty acids, sesquiterpenes, non-hallucinogenic indole compounds, peptides, enzymes, adenosine derivatives, and many other components. Most of these metabolite groups possess potential therapeutic and dietary values. The results of quantitative analyses of indole compounds and heavy metals signal potential health hazards for humans. Some of the studies reviewed herein describe in detail the mechanism of symbiosis between A. mellea and the orchid species Gastrodia elata. This orchid is native to Asia, Australia, and New Zealand, and is used in therapeutics in official Chinese medicine.

2631. Application of near-infrared spectroscopy technology in quality control of TCM manufacturing process

By Tu Yaosheng; Liu Jun; Zhang Jianjun

With the development of research in near-infrared spectroscopy technology, near-infrared spectroscopy are increasingly employed in quality control of traditional Chinese medicine (TCM) manufacturing process. The recent researches in relative field were summarized in this paper. Perspective of near-infrared spectroscopy technology in quality control of TCM manufacturing process was also presented in this paper.

2632. Mitochondrial dysfunction induced by excessive ROS/RNS-metabolic cardiovascular disease and traditional Chinese medicines intervention
Metabolic cardiovascular disease is a type of disease which almost caused by body carbohydrate and lipid metabolism dysfunction. Type 2 diabetes mellitus is a typical metabolic disease. It not only lead to the insulin resistance but also related to atherosclerosis. Oxidative stress is produced by the reactive oxygen/nitrogen species (ROS/RNS). Oxidative stress and its consequence events play important roles in atherosclerosis (AS). Mitochondria are both sources and targets of reactive oxygen and/or nitrogen species (ROS/RNS), and there is growing evidence that mitochondrial dysfunction may be relevant intermediate mechanism by which cardiovascular risk factors lead to the formation of vascular lesions. Several cardiovascular risk factors are demonstrated causes of mitochondrial damage. This review starts with excessive ROS/RNS-induced mitochondrial dysfunction. The authors emphasize the relationship among axis of excessive ROS/RNS-mitochondrial dysfunction-apoptosis-atherosclerosis. They also introduce several traditional Chinese medicines such as Ophiopogon japonicus, butin, Panax ginseng, Pueraria lobata, Solanum lyratum and so on in the treatment of relevant diseases through anti-ROS/RNS mechanism. Moreover, the TCMs also can anti-cancer and anti-fatigue, which show the speciality of TCMs different from the single effect of classical western medicines.

~1 Citing

2633. Acupuncture for posttraumatic stress disorder: conceptual, clinical, and biological data support further research

By Hollifield Michael
From CNS neuroscience & therapeutics (2011), 17(6), 769-79, Language: English, Database: MEDLINE

Posttraumatic stress disorder (PTSD) is common, debilitating, and has highly heterogeneous clinical and biological features. With the exception of one published preliminary clinical trial, rationale in support of the efficacy of acupuncture, a modality of Chinese medicine (MWM), has not been well described. This is a focused review of conceptual and clinical features of PTSD shared by modern western medicine (MWM) and CM, and of biological mechanisms of acupuncture that parallel known PTSD pathology. MWM and CM both recognize individual developmental variables and interactions between external conditions and internal responses in the genesis of PTSD. There is one published and one unpublished clinical trial that preliminarily support the efficacy of acupuncture for PTSD. Although there have been no mechanistic studies of acupuncture in human PTSD, extant research shows that acupuncture has biological effects that are relevant to PTSD pathology. Conceptual, clinical, and biological data support possible efficacy of acupuncture for PTSD. However, further definitive research about simultaneous clinical and biological effects is needed to support the use of acupuncture for PTSD in health care systems.

~0 Citings

2634. Medicinal plants and dementia therapy: herbal hopes for brain aging?

By Perry Elaine; Howes Melanie-Jayne R
From CNS neuroscience & therapeutics (2011), 17(6), 683-98, Language: English, Database: MEDLINE

An escalating "epidemic" of diseases like Alzheimer's has not yet been met by effective symptomatic treatments or preventative strategies. Among a few current prescription drugs are cholinesterase inhibitors including galantamine, originating from the snowdrop. Research into ethnobotanicals for memory or cognition has burgeoned in recent years. Based on a multi-faceted review of medicinal plants or phytochemicals, including traditional uses, relevant bioactivities, psychological and clinical evidence on efficacy and safety, this overview focuses on those for which there is promising clinical trial evidence in people with dementia, together with at least one other of these lines of supporting evidence. With respect to cognitive function, such plants reviewed include sage, Ginkgo biloba, and complex mixtures of other traditional remedies. Behavioral and psychological symptoms of dementia (BPSD) challenge carers and lead to institutionalization. Symptoms can be alleviated by some plant species (e.g., lemon balm and lavender alleviate agitation in people with dementia; St John's wort treats depression in the normal population). The ultimate goal of disease prevention is considered from the perspective of limited epidemiological and clinical trial evidence to date. The potential value of numerous plant extracts or chemicals (e.g., curcumin) with neuroprotective but as yet no clinical data are reviewed. Given intense clinical need and carer concerns, which lead to exploration of such alternatives as herbal medicines, the following research priorities are indicated: investigating botanical agents which enhance cognition in populations with mild memory impairment or at earliest disease stages, and those for BPSD in people with dementia at more advanced stages; establishing an ongoing authoritative database on herbal medicine for dementia; and further epidemiological and follow up studies of promising phytopharmaceuticals or related nutraceuticals for disease prevention.
2635. **Traditional Chinese medicine in cancer care: a review of case reports published in Chinese literature**

By Liu Jianping; Li Xun; Liu Jingyuan; Ma Lixin; Li Xinxue; Fonnebo Vinjar


**BACKGROUND:** Traditional Chinese Medicine (TCM) is widely used for cancer treatment in China. Many support its use in treatment for cancer, yet scientific evidence for the effect of TCM needs to be established.

**MATERIAL AND METHODS:** In this review case reports on cancer patients treated by TCM therapies are included. Search runs were conducted in 4 main Chinese databases till December 2009.

**RESULTS:** A total of 716 reports involving 1,198 cancer patients were identified and summarized. Top 5 of the reported cancers treated with TCM were lung cancer (14.44%; 173 patients), leukemia (14.11%; 169 patients), stomach cancer (10.85%; 130 patients), liver cancer (10.18%; 122 patients) and esophageal cancer (7.35%; 88 patients). In the majority of cases (66.44%; 772) combined treatments of Chinese and conventional medicine were applied. The use of herbal medicine was highly prevalent (98.50%; 1,168 patients), and the typical administration was an individually tailored treatment according to the pattern differentiation of symptoms (74.21%; 889 patients); the use of acupuncture was relatively rare (1.8%; 22 patients). Symptom improvement was the most frequently reported outcome (84.72%; 1,015 patients). Only 15 studies (2.1%) were structurally reported. Detailed information on patients' demography, pathologically confirmed diagnosis and safety was given in 275 (22.95%), 692 (57.76%) and 10 (0.83%) reports, respectively.

**CONCLUSION:** The amount of information from case reports of TCM therapies in cancer is rich and can be valuable for the preliminary evaluation of TCM and for the planning of further clinical trials in cancer treatment. However, the quality of the reports was generally poor and we recommend that case reports should be published in a structured manner.

2636. **The potential role of Chinese medicine in ameliorating extra-articular manifestations of rheumatoid arthritis**

By Liu Jian; Liu Rui-lian

From Chinese journal of integrative medicine (2011), 17(10), 735-7, Language: English, Database: MEDLINE

Rheumatoid arthritis (RA) is a chronic systemic autoimmune disease chiefly affecting synovial membranes of multiple joints. The clinical manifestations are highly variable. Besides joint affection, extra-articular manifestations always occur in RA patients, such as lung, blood vessel, heart, endocrine glands, hematological system, and nervous system affections. In addition to Western medicine therapy, Chinese medicine also plays a significant role in the treatment of RA with good efficacy and less adverse reactions. This paper summarizes the effects of xinfeng capsule, a Chinese medicine, and the mechanisms of its action in ameliorating the extra-articular manifestations based on a series of clinical and experimental researches.

2637. **Action mechanisms of complementary and alternative medicine therapies for rheumatoid arthritis**

By Keisuke Imada; Bian Bao-lin; Li Xiang-dong; Takashi Sato; Akira Ito

From Chinese journal of integrative medicine (2011), 17(10), 723-30, Language: English, Database: MEDLINE
Rheumatoid arthritis (RA) is characterized as a chronic inflammatory disease in joints and concomitant destruction of cartilage and bone. Cartilage extracellular matrix components, such as type II collagen and aggrecan are enzymatically degraded by matrix metalloproteinases (MMPs) and aggrecanases in RA. Currently, treatments targeting cytokines, including anti-tumor necrosis factor (TNF) α antibodies, soluble TNF receptor, anti-interleukin (IL)-6 receptor antibody, and IL-1 receptor antagonist, are widely used for treating RA in addition to anti-inflammatory agents and disease-modifying antirheumatic drugs (DMARDs), such as infliximab, but these treatments have some problems, especially in terms of cost and the increased susceptibility of patients to infection in addition to the existence of low-responders to these treatments. Therefore, therapeutics that can be safely used for an extended period of time would be preferable. Complementary and alternative medicines including traditional Chinese medicines (TCM) have been used for the arthritic diseases through the ages. Recently, there are many reports concerning the anti-arthritic action mechanisms of TCM-based herbal formulas and crude herbal extracts or isolated ingredients. These natural herbal medicines are thought to moderately improve RA, but they exert various actions for the treatment of RA. In this review, the current status of the mechanism exploration of natural compounds and TCM-based herbal formulas are summarized, focusing on the protection of cartilage destruction in arthritic diseases including RA and osteoarthritis.

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2638. The role of alternative medicine in rhinology
By Roehm Corrie E; Tessema Belachew; Brown Seth M

Complementary and alternative medicine (CAM) includes treatments from traditional Chinese medicine, homeopathy, naturopathy, herbal medicine, Ayurvedic medicine, mind-body medicine, chiropractic or osteopathic manipulations, and massage. More than 40% of patients in the United States use CAM, with 17% of CAM use related to otolaryngology diagnoses, but nearly half of CAM users do not communicate their use of these medications to their physicians. Perioperative risk of bleeding is a particular concern in surgical specialties, and knowledge of these therapies and their potential adverse effects is critical.

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2639. Overview in establishing animal models against ischemic cerebrocardiac disease and thinking about efficacy evaluation of traditional Chinese medicine
By Sun Rong; Zhang Ya'nan

In order to explore the pathogenesis of ischemic cerebrovascular disease, drug screening, efficacy evaluation and treatment plan optimization, many kinds of animal models against ischemic cerebrocardiac were established with operation successively in recent years. According to the characteristic of traditional Chinese medicine, it's a question to choose the appropriate animal model for drug screening and efficacy evaluation, and to combine the cerebral ischemia of animal models with clinical disease research closely. The stability and reliability of animal models and the efficacy of drugs in clinical should be considered in order to provide effective drug screening evaluation research tools.

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2640. Icariin and its pharmaceutical efficacy: research progress of molecular mechanism
By Chen Yang; Huang Jian-hua; Ning You; Shen Zi-yin
From Zhong xi yi jie he xue bao = Journal of Chinese integrative medicine (2011), 9(11), 1179-84, Language: Chinese, Database: MEDLINE

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Icariin is one of the key active components of Epimedium species, which is most widely applied to supplement the kidney in traditional Chinese medicine. Scientific research has found that icariin possesses extensive therapeutic effects such as protecting neurons from injury, promoting growth of neuronal synapse, improving sexual dysfunction and bone morphogenesis, as well as anti-inflammation, anti-tumor and anti-depression functions. Considering that molecular mechanism is the fundamental basis for pharmaceutical efficacy of icariin, in this article, the authors retrospectively retrieved 122 scientific papers recorded in the PubMed database with "icariin" in the title from January 1, 1995 to January 5, 2011. It was found that icariin has been closely highlighted in the intervention of p38 mitogen-activated protein kinases and phosphatidylinositol 3-kinase/Akt signal pathways, inhibition of phosphodiesterase 5, and regulation of nuclear receptors. Besides, the authors also discussed the main orientation for molecular mechanism of icariin in future research.

2641. Network target: a starting point for traditional Chinese medicine network pharmacology

By Li Shao

Understanding the interactions between numerous chemical compounds of herbs or herbal formulae and complex biological systems related with diseases or traditional Chinese medicine (TCM) syndromes is one of great dilemmas in current studies on TCM. To address such a difficult issue, we propose a novel concept and methodology of "Network Target" based on our previous works and from the perspective of network pharmacology as well as systems biology. The network target treats a disease-specific biomolecular network as a target to help design and predict the best possible treatments. Focused on mapping disease phenotypes and herbal compounds into biomolecular networks and then calculating, analyzing and predicting the mechanism of their mutual interactions, the network target approaches will facilitate discovery of effective compounds and their combinations, elucidation of mechanistic relationships between herbal formulae and diseases or TCM syndromes, and development of rational drug designs for TCM. In this paper, our recent progresses on the methodology of Network Target and its applications in herbal medicine are reviewed to provide reference for the coming TCM network pharmacology.

2642. Feasibility analysis of application of future contract in Chinese materia medica transaction

By Huang Luqi; Yang Guang; Zhang Ruixian; Ma Chaoyi

With the rapid development of Chinese economy, the traditional Chinese medicine has been paid more attention worldwide because of its therapeutic effect and the special health care function. The future contract which was born under the modern economic system, by its price discovery function and the circumvention risk function, occupies the main superiority in the commodity exchange. The traditional Chinese medicine, which has a glorious transaction history commodity, whether future contract could be used to carry on the transaction still to lack the scientific examination. This article reviewed traditional Chinese medicine tradition trading mode forms with in the evolution foundation, summarized the Chinese materia medica tradition trading mode characteristic, discussed necessity and feasibility of the future contract as a supplement sale way for traditional Chinese medicine transaction. It also forecasted possible risk of future contract, proposed the preliminary implementation method for traditional Chinese medicine future contract.

2643. Chinese ethics review system and Chinese medicine ethical review: past, present, and future

By Li En-Chang; Du Ping; Ji Ke-Zhou; Wang Zhen
From Chinese journal of integrative medicine (2011), 17(11), 867-72, Language: English, Database: MEDLINE
The Chinese medical ethics committee and the ethical review system have made the following achievements: (1) enabled the institutionalization of medical ethics, (2) carried out the ethics review of Chinese medicine (CM) and integrative medicine extensively, (3) trained a large number of ethical professionals, (4) supported and protected the interests of patients and subjects, and (5) ensured the correct direction of biological research and provided ethical defense for the publication of its results. However, at the same time, they are also faced with some new problems and difficulties that need to be resolved in the following ways: (1) to refine the relevant rules of ethical review, (2) to develop the relevant standards of the CM and integrative medicine ethical review, (3) to enhance the independence and authority of ethics committee, (4) to emphasize innovation and to discover and solve new problems, and (5) to increase international exchanges and improve relevant research.

2644. Chinese medicine pattern differentiation and its implications for clinical practice
By Ferreira Arthur Sa; Lopes Agnaldo Jose
From Chinese journal of integrative medicine (2011), 17(11), 818-23, Language: English, Database: MEDLINE

Chinese medicine practitioners apply the differentiation reasoning for decision-making. The wide scope of Chinese medicine intervention provides coverage of methods and techniques with applications to primary, secondary and tertiary levels of prevention. The rapid evolution of mathematical and computational techniques allowed the implementation of several models for pattern differentiation that were tested for several physiologic systems. Concurrently, it is argued that pattern differentiation might improve the efficacy of either traditional or conventional medical interventions. This article reviewed the influence of pattern differentiation into clinical practice organized by medical field: general pattern differentiation; genitourinary (recurrent cystitis); cardiovascular (coronary heart disease; arterial hypertension; angina pectoris); neurology (stroke); surgery; metabolic (diabetes mellitus); hepatic (cirrhosis); gastrointestinal (chronic superficial gastritis); orthopedic (low back pain; rheumatoid arthritis; cervical spondylosis; elbow arthritis); oncology (gastric mucosal dysplasia; lung cancer); gynecologic and obstetric manifestations (nausea and vomiting). The reviewed studies presented achievements that have contributed to the integration of Chinese medicine and evidence-based medicine in the treatment of many mild and severe diseases. Target diseases considered as major public health problems were also investigated and the results are promising regarding the possibility to treat guided by pattern differentiation.

2645. Chinese medicine pattern diagnosis could lead to innovation in medical sciences
By Lu Ai-Ping; Chen Ke-Ji
From Chinese journal of integrative medicine (2011), 17(11), 811-7, Language: English, Database: MEDLINE

Chinese medicine (CM) pattern diagnosis (Bian zheng or syndrome differentiation), as another patient classification approach, has been incorporated with biomedicine diagnosis in clinical practice in China, and the clinical experience has proven that the integration of biomedicine and CM is better in the treatment of many diseases. CM pattern diagnosis is completely different from the diagnosis in biomedicine, and it must take an active role in innovation for medical sciences. This paper is trying to discuss how CM pattern diagnosis lead to innovations in basic research, clinical research and new drug discovery. Scientific basis of CM pattern in innovation of basic research, clinical efficacy and safety, CM pattern based clinical trial design, CM pattern and clinical practice guideline in innovation of clinical study, CM pattern based indication finding, and CM pattern based network pharmacology in innovation of new drug discovery have been discussed.

2646. A systematic analysis of the theory and practice of syndrome differentiation
By Mei Man Fong
From Chinese journal of integrative medicine (2011), 17(11), 803-10, Language: English, Database: MEDLINE
Syndrome differentiation is a methodology unique to Chinese medicine. It threads the diagnosis process with clinical treatment into a holistic web of links to determine and regulate the patterns of dysfunctions in the human body. It is seen as the essence of Chinese medicine because it takes into account the theoretical principles, diagnostic methodologies and the modality of treatment holistically. In this process the progressive development and changes of syndromes are also considered by the physician. This paper is a systematic study of the methodology of syndrome differentiation in relation to its clinical applications in the treatment of diseases. To illustrate the efficacy of syndrome differentiation, the relationship between pattern identification and diseases is analysed to provide a guiding principle for integration between Chinese medicine and Western medicine. Diseases being selected include cancer, cardiovascular and metabolic syndromes. A study of renal and hepatic diseases related to lifestyle is also included to highlight the clinical efficacy of syndrome differentiation. The paper also includes an analytical summary of the theoretical advancements made in integrative differentiation methodology during the past five decades which links to the recent clinical thinking and practice.

2647. The mobilization of autologous bone marrow stem cells in the treatment of heart failure with Chinese medicine

By Yao Kui-Wu; Zhang Liang-Deng; Wang Jie
From Chinese journal of integrative medicine (2011), 17(11), 873-80, Language: English, Database: MEDLINE

Heart failure (HF) is a severe heart disease. The use of autologous bone marrow stem cells (BMCs) mobilization in the treatment of HF has been a hot topic to research both in Western medicine and Chinese medicine (CM). There are many clinical trials and experiments on study of BMCs mobilization for HF therapy, including integrative medicine. The effect of BMCs mobilization is favorable for cardiac repair, while some advantages of CM support the advanced study of its application in BMCs mobilization to treat HF. In addition, with mechanisms of autologous BMCs mobilization for the treatment of HF that will be revealed in the future, especially stem cells niches, integrative medicine would play an important role in this clinical thought of therapy model gradually. Simultaneously, CM should adapt the new approaches of stem cells progresses on HF treatment as holding characteristics of itself.

2648. Lonicera japonica Thunb.: ethnopharmacology, phytochemistry and pharmacology of an important traditional Chinese medicine

By Shang Xiaofei; Pan Hu; Li Maoxing; Miao Xiaolou; Ding Hong

ETHNOPHARMACOLOGICAL RELEVANCE: Lonicera japonica Thunb. (Caprifoliaceae), a widely used traditional Chinese medicine, was known as Jin Yin Hua (Chinese: ), Ren Dong and Japanese honeysuckle. It was taken to treat the exopathogenic wind-heat, epidemic febrile diseases, sores, carbuncles and some infectious diseases. At the same time, Lonicera japonica could be used as healthy food, cosmetics, ornamental groundcover, and so on. AIM OF THE REVIEW: The present paper reviewed the ethnopharmacology, the biological activities, toxicology and phytochemistry of Lonicera japonica. MATERIALS AND METHODS: Information on Lonicera japonica was gathered via the Internet (using Google Scholar, Baidu Scholar, Elsevier, ACS, Medline Plus, CNKI and Web of Science) and libraries. Additionally, information also was obtained from some local books and brilliant scholars on ethnopharmacology. RESULTS: More than 140 chemical compounds have been isolated, and the main compositions are essential oils, organic acids and flavones, etc. Lonicera japonica and its active principles possess wide pharmacological actions, such as anti-inflammatory, antibacterial, antiviral, antioxidative and hepatoprotective activities. CONCLUSIONS: As an important traditional Chinese medicine, further studies on Lonicera japonica can lead to the development of new drugs and therapeutics for various diseases, and how to utilize it better should be paid more attentions.

2649. Efficacy of Traditional Chinese Herbal Medicine in the management of female infertility: a systematic review

By Ried Karin; Stuart Keren
From Complementary therapies in medicine (2011), 19(6), 319-31, Language: English, Database: MEDLINE

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OBJECTIVES: To assess the effect of Traditional Chinese Herbal Medicine (CHM) in the management of female infertility and on pregnancy rates compared with Western Medical (WM) treatment. METHODS: We searched the Medline and Cochrane databases and Google Scholar until February 2010 for abstracts in English of studies investigating infertility, menstrual health and Traditional Chinese Medicine (TCM). We undertook meta-analyses of (non-)randomised controlled trials (RCTs) or cohort studies, and compared clinical pregnancy rates achieved with CHM versus WM drug treatment or in vitro fertilisation (IVF). In addition, we collated common TCM pattern diagnosis in infertility in relation to the quality of the menstrual cycle and associated symptoms. RESULTS: Eight RCTs, 13 cohort studies, 3 case series and 6 case studies involving 1851 women with infertility were included in the systematic review. Meta-analysis of RCTs suggested a 3.5 greater likelihood of achieving a pregnancy with CHM therapy over a 4-month period compared with WM drug therapy alone (odds ratio=3.5, 95% CI: 2.3, 5.2, p<0.0001, n=1005). Mean (SD) pregnancy rates were 60±12.5% for CHM compared with 32±10% using WM drug therapy. Meta-analysis of selected cohort studies (n=616 women) suggested a mean clinical pregnancy rate of 50% using CHM compared with IVF (30%) (p<0.0001). CONCLUSIONS: Our review suggests that management of female infertility with Chinese Herbal Medicine can improve pregnancy rates 2-fold within a 4 month period compared with Western Medical fertility drug therapy or IVF. Assessment of the quality of the menstrual cycle, integral to TCM diagnosis, appears to be fundamental to successful treatment of female infertility.

2650. The evidence for Shiatsu: a systematic review of Shiatsu and acupressure
By Robinson Nicola; Lorenc Ava; Liao Xing
From BMC complementary and alternative medicine (2011), 1188, Language: English, Database: MEDLINE

BACKGROUND: Shiatsu, similar to acupressure, uses finger pressure, manipulations and stretches, along Traditional Chinese Medicine meridians. Shiatsu is popular in Europe, but lacks reviews on its evidence-base. METHODS: Acupressure and Shiatsu clinical trials were identified using the MeSH term 'acupressure' in: EBM reviews; AMED; BNI; CINAHL; MEDLINE; PsycARTICLES; Science Direct; Blackwell Synergy; Ingenta Select; Wiley Interscience; Index to Theses and ZETOC. References of articles were checked. Inclusion criteria were Shiatsu or acupressure administered manually/bodily, published after January 1990. Two reviewers performed independent study selection and evaluation of study design and reporting, using standardised checklists (CONSORT, TREND, CASP and STRICTA). RESULTS: Searches identified 1714 publications. Final inclusions were 9 Shiatsu and 71 acupressure studies. A quarter were graded A (highest quality). Shiatsu studies comprised 1 RCT, three controlled non-randomised, one within-subjects, one observational and 3 uncontrolled studies investigating mental and physical health issues. Evidence was of insufficient quantity and quality. Acupressure studies included 2 meta-analyses, 6 systematic reviews and 39 RCTs. Strongest evidence was for pain (particularly dysmenorrhoea, lower back and labour), post-operative nausea and vomiting. Additionally quality evidence found improvements in sleep in institutionalised elderly. Variable/poor quality evidence existed for renal disease symptoms, dementia, stress, anxiety and respiratory conditions. Appraisal tools may be inappropriate for some study designs. Potential biases included focus on UK/USA databases, limited grey literature, and exclusion of qualitative and pre-1989 studies. CONCLUSIONS: Evidence is improving in quantity, quality and reporting, but more research is needed, particularly for Shiatsu, where evidence is poor. Acupressure may be beneficial for pain, nausea and vomiting and sleep.

2651. Advance of polysorbate 80 for injection accessories
By Zhang Meiyu

Polysorbate 80 for injection accessories is one of the main reactions of clinical adverse to which may be leded by a variety of traditional Chinese medicine injection. In this review, on the basis of literature research and experimental studies, polysorbate 80 are summarized in areas which conclude the chemical structure, basic nature,quality standards, pharmacological activity, safety evaluation and toxicity studies. The review aimed to provide theoretical basis for the rational selections of Chinese medicine, safe and efficient usages of injection accessories, and to promote healthy development of traditional Chinese medicine injections.
2652. Improvement and enhancement of traditional Chinese medicine injections

By Li Yikui; Zhang Jinyan

Compared to oral administrations, traditional Chinese medicine (TCM) injections act more rapidly and stronger, which is good for the treatment of acute or complicated diseases and makes up for the deficiencies of the oral ways. As an innovative dosage form which combines the modern pharmaceutical technology with the TCM, it represents the spirit of improvement and enhancement. With the expansion of clinical applications and adverse reactions or even death caused by individual dosages, TCM injections are receiving concerns from all fields of society and facing tremendous challenges and pressures. Some even suggested the cancellation. This study discussed the background, current situation and the reasons for the occurrence of adverse reactions. Taking Houttuynia injection as an example, it introduced the principle of improvement and described in detail the ideas and methods for it, which provided some reference for the improvement and enhancement of the TCM injections and reduced the safety risks of TCM injections to minimum.

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2653. Ligusticum chuanxiong Hort: a review of chemistry and pharmacology

By Ran Xia; Ma Li; Peng Cheng; Zhang Hong; Qin Lu-Ping
From Pharmaceutical biology (2011), 49(11), 1180-9, Language: English, Database: MEDLINE

CONTEXT: Ligusticum chuanxiong Hort (LC; Umbelliferae) is an effective medical plant, which has been extensively applied for many years to treat various diseases with other Chinese herbal medicines. Although a considerable amount of scientific research was reported on LC in the last decade, it is currently scattered across various publications. The present review comprises the chemical and pharmacological research on LC in the last decade. OBJECTIVE: The objective of this review is to bring together most of the scientific research available on LC and evaluate its effects and mechanisms. METHODS: The information for 82 cases included in this review was compiled using major databases such as Medline, Elsevier, Springer, Pubmed, and Scholar. RESULTS: The compounds contained in LC can be divided into five kinds, essential oil (EO), alkaloids, phenolic acids, phthalide lactones, and other constituents. A great deal of pharmacological research has been done, which mainly focuses on cardiovascular and cerebrovascular effects, antioxidation, neuroprotection, antifibrosis, antiinocception, antinflammation, and antineoplastic activity. CONCLUSION: A large number of pharmacological and chemical studies during the last 10 years have demonstrated the vast medicinal potential of LC. It is still very clear that LC is a plant with widespread use now and also with extraordinary potential for the future. The documents strongly support the view that LC has beneficial therapeutic properties and indicates its potential as an effective adaptogenic herbal remedy.

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2654. Mechanism of acupuncture on neuromodulation in the gut--a review

By Takahashi Toku

INTRODUCTION: Acupuncture has been used for treating various gastrointestinal (GI) diseases. However, the mechanism of acupuncture remains unclear. METHODS: The aim of this article is to review the published literature on the mechanism of acupuncture on neuromodulation in the gut. RESULTS: Acupuncture treatment involves the insertion of thin needles into the skin and underlying muscle and the subsequent stimulation of the needles manually or electrically. Thus, acupuncture stimulates the somatic afferent nerves of the skin and muscles. The somatic sensory information from the body is carried to the cortex area of the brain. Somatic sensory fibers also project to the various nuclei at the brain stem and hypothalamus. Via somato-autonomic reflex, acupuncture modulates various biomechanical responses, such as prokinetic, antiemetic, and anti-nociceptive effects. CONCLUSION: According to traditional Chinese medicine, "Acupuncture is believed to restore the balance of Yin and Yang." This can be translated into the Western medicine terminology that "Acupuncture modulates the imbalance between the parasympathetic and sympathetic activity." Acupuncture may be effective in patients with functional GI disorders because of its effects on GI motility and visceral pain.

~1 Citing

Copyright © 2012 U.S. National Library of Medicine.
2655. Ancient Chinese medicine and mechanistic evidence of acupuncture physiology
By Yang Edward S; Li Pei-Wen; Nilius Bernd; Li Geng

Acupuncture has been widely used in China for three millennia as an art of healing. Yet, its physiology is not yet understood. The current interest in acupuncture started in 1971. Soon afterward, extensive research led to the concept of neural signaling with possible involvement of opioid peptides, glutamate, adenosine and identifying responsive parts in the central nervous system. In the last decade scientists began investigating the subject with anatomical and molecular imaging. It was found that mechanical movements of the needle, ignored in the past, appear to be central to the method and intracellular calcium ions may play a pivotal role. In this review, we trace the technique of clinical treatment from the first written record about 2,200 years ago to the modern time. The ancient texts have been used to introduce the concepts of yin, yang, qi, de qi, and meridians, the traditional foundation of acupuncture. We explore the sequence of the physiological process, from the turning of the needle, the mechanical wave activation of calcium ion channel to beta-endorphin secretion. By using modern terminology to re-interpret the ancient texts, we have found that the 2nd century B.C.: physiologists were meticulous investigators and their explanation fits well with the mechanistic model derived from magnetic resonance imaging (MRI) and confocal microscopy. In conclusion, the ancient model appears to have withstood the test of time surprisingly well confirming the popular axiom that the old wine is better than the new.

~0 Citings

2656. Progress in study on synergism and detoxification of Chinese medicine for glucocorticoid
By Xie Guan-Qun; Wen Cheng-Pin; Fan Yong-Shen

Glucocorticoid (GC) plays an important role in anti-inflammatory, anti-allergic effects and immunosuppression, and has become a widely used drug in clinical departments. However, GC also produces a number of serious side effects at the same time. After GC acting on human body, the syndrome change has some regular pattern and it can be treated on the basis of syndrome differentiation and stage to aim at further improving therapeutic efficacy. The Chinese medicine can reduce the side effects of GC when treating the primary disease, thus plays a role in Synergism and Detoxification.

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2657. Evidence-based Chinese medicine for rheumatoid arthritis
By Zhang Chi; Jiang Miao; Lu Ai-Ping

Chinese medicine (CM) has long been adopted for treatment of rheumatoid arthritis (RA). CM approaches RA as it does for other diseases by holistic treatment, focusing on the whole body condition, and giving a variety of applications in accordance with the stage and symptoms of the disease. For seeking the best evidence of CM in making decisions for the care of RA individual patients, a number of clinical studies have been conducted in China to gain credibility with the researchers' unremitting efforts. But the heterogeneity in many of these clinical trials and the low quality of design in some previous studies present an obstacle to the meaningful systematic reviews (SR) and meta-analysis. Some favorable results in improvement of response to biomedicine and reduction of severe adverse reactions of conventional RA therapy should be carefully interpreted and need further research. Fortunately, more appropriate quality assurance and control of CM researches are raised for the implementation of CM in RA therapy to pave the evidence-based way. Guidelines for the diagnosis and treatment of RA recommend evidence to the clinicians. In future, randomized controlled trials (RCT) with smart and flexible design as a good approach to evaluate the effectiveness will be widely used in CM for RA clinical study, with better research methods suitable for certain CM clinical researches. The development of evidence-based CM for RA will be full of challenge and opportunity, but we have full confidence.

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2658. Advances in cooperativity and mechanism of combination of Back-shu and Front-mu points
By Wang Hao; Shen Guo-Ming
From Zhongguo zhen jiu = Chinese acupuncture & moxibustion (2011), 31(9), 862-4, Language: Chinese, Database: MEDLINE

The articles related with combination of Back-shu and Front-mu points searched in CNKI and Pubmed databases during the past 10 years were studied. The conclusions indicate that the application of combination of Back-shu and Front-mu points has solid theoretical basis and experimental evidence, and it is proved that the combination of Back-shu points and Front-mu points is effective in clinic practice. However, the mechanism study still rest on the level of spinal cord, and the breakthrough of combination of Back-Shu and Front-Mu points study is that whether the superior nerve centre involves on the regulation of zang-fu organs by combination of Back-shu and Front-mu points. The key point in future study is to explore the central control mechanism of combination of Back-shu and Front-mu points.

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2659. Application of proteomics in the mechanistic study of traditional Chinese medicine
By Liu Xuan; Guo De-An

Systems biology is considered to be the possible technology that could bring breakthroughs in the study of TCM (traditional Chinese medicine). Proteomics, as one of the major components of systems biology, has been used in the mechanistic study of TCM, providing some interesting results. In the present paper, we review the current application of proteomics in the mechanistic study of TCM. Proteomics technologies and strategies that might be used in the future to improve study of TCM are also discussed.

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2660. Western and Chinese medicine in oncology and hematology
By Lampe Hans; Halle Bettina; Freund Mathias

Based on a conclusive theoretical background, both Western and Chinese Medicine have developed diagnostic and therapeutic procedures which lead to reproducible treatment results. Whilst Western Medicine focuses on a most precise diagnosis of tumor histology and the extent of dissemination, Chinese Medicine has developed tools for a functional diagnoses of disturbed body functions. And as Western Medicine aims at producing most specific targeted drugs, Chinese Medicine intends to stabilize disturbed body functions mostly with decoctions. A combined treatment which synergizes specific tumor attack and patient stabilization seems promising. However, the different cultural backgrounds have led to different standards of evaluation. Although the scientific evaluation of Chinese Medicine has led to the development of new drugs, the majority of treatments with decoctions are not evaluated according to the accepted standards. As of today, modern research could only occasionally find explanations for the longstanding experience, but new research ideas have resulted from this confrontation. The approach of combining standard treatments with Chinese treatment concepts only started a few decades ago. The experiences and promising results from smaller studies stand against possible risks of unknown interactions with proven treatment concepts. Pharmacokinetic and clinical studies will be necessary to evaluate these combined treatment concepts. In everyday life, Western and Chinese Medicine should be used in sequence, whereas in studies and special situations the combined approach should be applied to offer possible benefits without causing unnecessary risks to the patients.

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2661. Berberine hydrochloride: anticancer activity and nanoparticulate delivery system
By Tan Wen; Li Yingbo; Chen Meiwan; Wang Yitao
BACKGROUND: Berberine hydrochloride is a conventional component in Chinese medicine, and is characterized by a diversity of pharmacological effects. However, due to its hydrophobic properties, along with poor stability and bioavailability, the application of berberine hydrochloride was hampered for a long time. In recent years, the pharmaceutical preparation of berberine hydrochloride has improved to achieve good prospects for clinical application, especially for novel nanoparticulate delivery systems. Moreover, anticancer activity and novel mechanisms have been explored, the chance of regulating glucose and lipid metabolism in cancer cells showing more potential than ever. Therefore, it is expected that appropriate pharmaceutical procedures could be applied to the enormous potential for anticancer efficacy, to give some new insights into anticancer drug preparation in Chinese medicine. METHODS AND RESULTS: We accessed conventional databases, such as PubMed, Scope, and Web of Science, using “berberine hydrochloride”, “anti-cancer mechanism”, and “nanoparticulate delivery system” as search words, then summarized the progress in research, illustrating the need to explore reprogramming of cancer cell metabolism using nanoparticulate drug delivery systems. CONCLUSION: With increasing research on regulation of cancer cell metabolism by berberine hydrochloride and troubleshooting of issues concerning nanoparticulate delivery preparation, berberine hydrochloride is likely to become a natural component of the nanoparticulate delivery systems used for cancer therapy. Meanwhile, the known mechanisms of berberine hydrochloride, such as decreased multidrug resistance and enhanced sensitivity of chemotherapeutic drugs, along with improvement in patient quality of life, could also provide new insights into cancer cell metabolism and nanoparticulate delivery preparation.

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2662. Update on the chemopreventive effects of ginger and its phytochemicals

By Baliga Manjeshwar Shrinath; Haniadka Raghavendra; Pereira Manisha Maria; D'Souza Jason Jerome; Pallaty Princy Louis; Bhat Harshith P; Popuri Sandhya
From Critical reviews in food science and nutrition (2011), 51(6), 499-523, Language: English, Database: MEDLINE

The rhizomes of Zingiber officinale Roscoe (Zingiberaceae), commonly known as ginger, is one of the most widely used spice and condiment. It is also an integral part of many traditional medicines and has been extensively used in Chinese, Ayurvedic, Tibb-Unani, Srilankan, Arabic, and African traditional medicines, since antiquity, for many unrelated human ailments including common colds, fever, sore throats, vomiting, motion sickness, gastrointestinal complications, indigestion, constipation, arthritis, rheumatism, sprains, muscular aches, pains, cramps, hypertension, dementia, fever, infectious diseases, and helminthiasis. The putative active compounds are nonvolatile pungent principles, namely gingerols, shogaols, paradols, and zingerone. These compounds are some of the extensively studied phytochemicals and account for the antioxidant, anti-inflammatory, antiemetic, and gastroprotective activities. A number of preclinical investigations with a wide variety of assay systems and carcinogens have shown that ginger and its compounds possess chemopreventive and antineoplastic effects. A number of mechanisms have been observed to be involved in the chemopreventive effects of ginger. The cancer preventive activities of ginger are supposed to be mainly due to free radical scavenging, antioxidant pathways, alteration of gene expressions, and induction of apoptosis, all of which contribute towards decrease in tumor initiation, promotion, and progression. This review provides concise information from preclinical studies with both cell culture models and relevant animal studies by focusing on the mechanisms responsible for the chemopreventive action. The conclusion describes directions for future research to establish its activity and utility as a human cancer preventive and therapeutic drug. The above-mentioned mechanisms of ginger seem to be promising for cancer prevention; however, further clinical studies are warranted to assess the efficacy and safety of ginger.

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2663. Enlightenment by chiropractic's developing mode

By Wang Hui-hao; Zhang Ming-cai; Zhan Hong-sheng
From Zhongguo gu shang = China journal of orthopaedics and traumatology (2011), 24(8), 662-6, Language: Chinese, Database: MEDLINE

Traditional Chinese spinal manipulative therapy (TCSMT) and Chiropractic are similar in treating related with spinal disease, but they keep different characteristics of themselves. Although Chiropractic's "Subluxation" and TCSMT's "Jin Chu Cao and Gu Cuo Feng" theory have not be widely recognized, yet Chiropractic has already have official cooperation with WHO and has launched "WHO Basis of Chiropractic Training and Security Guide" which would promote the project further research. Comparatively, TCSMT has mature theoretical system and satisfactory clinical effectiveness, but it's hard to global spreading formally and legally. By means of cogitation of the TCSMT'S basic theories and clinical applications, this paper aims to analyze the inadequacy aspects of it, and hope to borrow some Chiropractic's advantage to TCSMT's global spreading. And I wish this paper could be helpful for relative doctors and researchers.
2664. Evidence-based treatments in pemphigus vulgaris and pemphigus foliaceus
By Frew John W; Martin Linda K; Murrell Dedee F

Treatment modalities in pemphigus vulgaris (PV) and pemphigus foliaceus (PF) are many and varied, although level 1 evidence supporting their use is limited. To date, only 2 systematic reviews exist to support the use of different treatment modalities to control this group of conditions. Overall, within the literature, the quality of trials comparing treatment modalities is poor. Cohort sizes are small, methodologies are varied, and standardized outcome measurements are lacking. The authors aim to present a comprehensive view of the level 1 evidence that exists for common treatment modalities used in PV and PF.

2665. A review of the pharmacological effects of Arctium lappa (burdock)
By Chan Yuk-Shing; Cheng Long-Ni; Wu Jian-Hong; Chan Enoch; Kwan Yiu-Wa; Lee Simon Ming-Yuen; Leung George Pak-Heng; Yu Peter Ho-Fu; Chan Shun-Wan

Arctium lappa, commonly known as burdock, is being promoted/recommended as a healthy and nutritive food in Chinese societies. Burdock has been used therapeutically in Europe, North America and Asia for hundreds of years. The roots, seeds and leaves of burdock have been investigated in view of its popular uses in traditional Chinese medicine (TCM). In this review, the reported therapeutic effects of the active compounds present in the different botanical parts of burdock are summarized. In the root, the active ingredients have been found to "detoxify" blood in terms of TCM and promote blood circulation to the skin surface, improving the skin quality/texture and curing skin diseases like eczema. Antioxidants and antidiabetic compounds have also been found in the root. In the seeds, some active compounds possess anti-inflammatory effects and potent inhibitory effects on the growth of tumors such as pancreatic carcinoma. In the leaf extract, the active compounds isolated can inhibit the growth of micro-organisms in the oral cavity. The medicinal uses of burdock in treating chronic diseases such as cancers, diabetes and AIDS have been reported. However, it is also essential to be aware of the side effects of burdock including contact dermatitis and other allergic/inflammatory responses that might be evoked by burdock.

2666. Treatment of asthma and food allergy with herbal interventions from traditional chinese medicine
By Li Xiu-Min

Prevalence of asthma and allergy has increased over the past 2-3 decades in Westernized countries. Despite increased understanding of the pathogenesis of asthma and allergic diseases, control of severe asthma is still difficult. Asthma is also associated with a high prevalence of anxiety, particularly in adolescents. There is no effective treatment for food allergy. Food allergy is often associated with severe and recalcitrant eczema. Novel approaches for treatment of asthma and food allergy and comorbid conditions are urgently needed. Traditional Chinese medicine, used in Asia for centuries, is beginning to play a role in Western healthcare. There is increasing scientific evidence supporting the use of traditional Chinese medicine for asthma treatment. Since 2005, several controlled clinical studies of "antiasthma" herbal remedies have been published. Among the herbal medicines, antiasthma herbal medicine intervention is the only antiasthma traditional Chinese medicine product that is a Food and Drug Administration investigational new drug that has entered clinical trials in the United States. Research into the effects and mechanisms of action of antiasthma herbal medicine intervention in animal models is actively being pursued. Research on traditional Chinese medicine herbal medicines for treating food allergy is rare. The herbal intervention Food Allergy Herbal Formula-2 is the only Food and Drug Administration botanical investigational new drug under investigation as a multiple food allergy therapy. This review article discusses promising traditional Chinese medicine interventions for asthma, food allergy, and comorbid conditions, and explores their possible mechanisms of action.
2667. Acupuncture for autism spectrum disorders (ASD)

By Cheuk Daniel Kl; Wong Virginia; Chen Wen Xiong

From Cochrane database of systematic reviews (Online) (2011), (9), CD007849, Language: English, Database: MEDLINE

BACKGROUND: Autism spectrum disorders (ASD) are characterized by impairment in social interaction, impairment in communication and lack of flexibility of thought and behavior. Acupuncture, which involves the use of needles or pressure to specific points on the body, is used widely in Traditional Chinese Medicine and increasingly within a western medical paradigm. It has sometimes been used as a treatment aimed at improving ASD symptoms and outcomes, but its clinical effectiveness and safety has not been rigorously reviewed. OBJECTIVES: To determine the effectiveness of acupuncture for people with ASD in improving core autistic features, as well as communication, cognition, overall functioning and quality of life, and to establish if it has any adverse effects. SEARCH STRATEGY: We searched the following databases on 30 September 2010: CENTRAL (The Cochrane Library, 2010, Issue 3), MEDLINE (1950 to September 2010 Week 2), EMBASE (1980 to 2010 Week 38), PsycINFO, CINAHL, China Journal Full-text Database, China Master Theses Full-text Database, China Doctor Dissertation Full-text Database, China Proceedings of Conference Database, Index to Taiwan Periodical Literature System, metaRegister of Controlled Trials and the Chinese Clinical Trials Registry. We also searched AMED (26 February 2009) and Dissertation Abstracts International (3 March 2009), but these were no longer available to the authors or editorial base at the date of the most recent search. TCMLARS (Traditional Chinese Medical Literature Analysis and Retrieval System) was last searched on 3 March 2009. SELECTION CRITERIA: We included randomized and quasi-randomized controlled trials. We included studies comparing an acupuncture group with at least one control group that used no treatment, placebo or sham acupuncture treatment in people with ASD. We excluded trials that compared different forms of acupuncture or compared acupuncture with another treatment. DATA COLLECTION AND ANALYSIS: Two review authors independently extracted trial data and assessed the risk of bias in the trials. We used relative risk (RR) for dichotomous data and mean difference (MD) for continuous data. MAIN RESULTS: We included 10 trials that involved 390 children with ASD. The age range was three to 18 years and the treatment duration ranged from four weeks to nine months. The studies were carried out in Hong Kong, mainland China and Egypt. Two trials compared needle acupuncture with sham acupuncture and found no difference in the primary outcome of core autistic features (RRFLRS total score: MD 0.09; 95% CI -0.03 to 0.21, P = 0.16), although results suggested needle acupuncture might be associated with improvement in some aspects of the secondary outcomes of communication and linguistic ability, cognitive function and global functioning. Six trials compared needle acupuncture plus conventional treatment with conventional treatment alone. The trials used different primary outcome measures and most could not demonstrate effectiveness of acupuncture in improving core autistic features in general, though one trial reported patients in the acupuncture group were more likely to have improvement on the Autism Behavior Checklist (RR 1.53; 95% CI 1.09 to 2.16, P = 0.02) and had slightly better post-treatment total scores (MD -5.53; 95% CI -10.76 to -0.31, P = 0.04). There was no evidence that acupuncture was effective for the secondary outcome of communication and linguistic ability, though there seemed to be some benefit for the secondary outcomes of cognitive function and global functioning. Two trials compared acupressure plus conventional treatment with conventional treatment alone and did not report on the primary outcome. Individual study results suggested there may be some benefit from acupressure for certain aspects of the secondary outcomes of communication and linguistic ability, cognitive function and global functioning. Four trials reported some adverse effects, though there was little quantitative information, and at times both intervention and control groups experienced them. Adverse effects noted included bleeding, crying due to fear or pain, irritability, sleep disturbance and increased hyperactivity. None of the trials reported on quality of life. There are a number of problems with the evidence base: the trials were few in number and included only children; six of the trials were at high risk of bias; they were heterogeneous in terms of participants and intervention; they were of short duration and follow-up; they reported inconsistent and imprecise results, and, due to carrying out large numbers of analyses, they were at risk of false positivity. AUTHORS’ CONCLUSIONS: Current evidence does not support the use of acupuncture for treatment of ASD. There is no conclusive evidence that acupuncture is effective for treatment of ASD in children and no RCTs have been carried out with adults. Further high quality trials of larger size and longer follow-up are needed.

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2668. Acupuncture for slowing the progression of myopia in children and adolescents

By Wei Mao Ling; Liu Jian Ping; Li Ni; Liu Ming

From Cochrane database of systematic reviews (Online) (2011), (9), CD007842, Language: English, Database: MEDLINE
BACKGROUND: Myopia (near-sightedness or short-sightedness) is one of the three commonly detected refractive (focusing) errors. Acupuncture is the stimulation of acupuncture points by various methods including needle insertion and acupressure. It is often used by traditional Chinese medicine practitioners to treat myopia in children.

OBJECTIVES: To assess the effectiveness and safety of acupuncture in slowing the progression of myopia in children and adolescents.

SEARCH STRATEGY: We searched CENTRAL (which contains the Cochrane Eyes and Vision Group Trials Register) (The Cochrane Library 2011, Issue 7), MEDLINE (January 1950 to July 2011), EMBASE (January 1980 to July 2011), the Allied and Complementary Medicine Database (AMED) (January 1985 to July 2011), Latin American and Caribbean Health Sciences Literature Database (LILACS) (January 1982 to July 2011), the metaRegister of Controlled Trials (mRCT) (www.controlled-trials.com), ClinicalTrials.gov (www.clinicaltrial.gov), the National Center for Complementary and Alternative Medicine (NCCAM) (The first issue to August 2010), the Chinese Biological Medicine Database (CBM) (1978 to April 2011), China National Knowledge Infrastructure (CNKI) (1994 to April 2011) and VIP (1989 to April 2011). There were no date or language restrictions in the electronic searches for trials. CENTRAL, MEDLINE, EMBASE, AMED, LILACS, mRCT and ClinicalTrials.gov were last searched on 9 July 2011. NCCAM was searched up to August 2010 and CBM, CNKI, and VIP were last searched on 6 April 2011.

SELECTION CRITERIA: We included randomized controlled trials (RCTs) that included any type of acupuncture treatment for myopia in children and adolescents.

DATA COLLECTION AND ANALYSIS: Two authors independently evaluated the search results according to the inclusion and exclusion criteria. Two authors extracted and assessed data independently. We contacted the study investigator for missing data.

MAIN RESULTS: We included two RCTs conducted in Taiwan with a total of 131 participants. We did not perform a meta-analysis as the trials were assessing different outcomes. Neither trial met our pre-defined primary outcome criteria of myopia progression defined as one diopter mean change. Only one trial reported the changes of axial length without non-significant difference among groups and both trials reported that several children experienced mild pain during acupuncture stimulation.

AUTHORS' CONCLUSIONS: Two trials are included in this review but no conclusions can be drawn for the benefit of co-acupressure for slowing progress of myopia in children. Further evidence in the form of RCTs are needed before any recommendations can be made for the use of acupuncture treatment in clinical use. These trials should compare acupuncture to placebo and have large sample sizes. Other types of acupuncture (such as auricular acupuncture) should be explored further as well as compliance with treatment for at least six months or longer. Axial length elongation of the eye should be investigated for at least one year. The potential to reduce/eliminate pain from acupuncture experienced by children should also be reviewed.

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2669. Current applications of molecular imaging and luminescence-based techniques in traditional Chinese medicine

By Li Jinhui; Wan Haitong; Zhang Hong; Tian Mei

ETHNOPHARMACOLOGICAL RELEVANCE: Traditional Chinese medicine (TCM), which is fundamentally different from Western medicine, has been widely investigated using various approaches. Cellular- or molecular-based imaging has been used to investigate and illuminate the various challenges identified and progress made using therapeutic methods in TCM. Insight into the processes of TCM at the cellular and molecular changes and the ability to image these processes will enhance our understanding of various diseases of TCM and will provide new tools to diagnose and treat patients.

MATERIALS AND METHODS: Various TCM therapies including herbs and formulations, acupuncture and moxibustion, massage, Gua Sha, and diet therapy have been analyzed using positron emission tomography, single photon emission computed tomography, functional magnetic resonance imaging and ultrasound and optical imaging. These imaging tools have kept pace with developments in molecular biology, nuclear medicine, and computer technology.

RESULTS: We provide an overview of recent developments in demystifying ancient knowledge - like the power of energy flow and blood flow meridians, and serial naturopathies - which are essential to visually and vividly recognize the body using modern technology.

CONCLUSIONS: In TCM, treatment can be individualized in a holistic or systematic view that is consistent with molecular imaging technologies. Future studies might include using molecular imaging in conjunction with TCM to easily diagnose or monitor patients naturally and noninvasively.

~0 Citings

2670. How would composite traditional Chinese medicine protect the brain--an example of the composite formula "Pien Tze Huang"

By Zhang L; Lam W P; Lu L; Wang Y-X J; Wong Y W; Lam L H; Tang H C; Wai M S; Mak Y T; Wang M; et al
From Current medicinal chemistry (2011), 18(23), 3590-4, Language: English, Database: MEDLINE
Chinese medicine has a long history of several thousand years. The main form of Traditional Chinese Medicine (TCM) is composite, i.e. a mixture of up to 10 medicinal products. Thus a composite prescription of 4-5 kinds of Chinese medicinal products may contain several hundred kinds of chemical composition. The active ingredients and clinical efficacy of which are difficult to characterize. We aim to review the Chinese literature of TCMs with neuroprotective effects. We illustrate with our study on Pien Tze Huang (PZH) the use of in vivo tests in the study of composite TCM. Our results show evidence that PZH might have neuroprotective effects in rats.

2671. Review of the effects of the traditional Chinese medicine Rehmannia Six Formula on diabetes mellitus and its complications

By Poon Terry Yam Chuen; Ong Kwok Leung; Cheung Bernard Man Yung

Rehmannia Six Formula (RF) is a formula that is commonly used in Traditional Chinese Medicine to treat patients with diabetes. A literature search was performed in PubMed for the years 2000-2009 using the key words RF, Rehmannia glutinosa, Fructus Corni, Dioscorea sp. (D. alata, D. opposita, D. batatas), Poria cocos, Alisma sp. (A. orientalis, A. plantago aquatica), and Paeonia suffruticosa/Cortex Moutan. On the basis of the publications found, RF appears to have beneficial effects on blood glucose, neuropathy, and nephropathy. There is also evidence of anti-inflammatory and antioxidant effects. Although there are many studies on compounds extracted from individual herbs, there are not many studies on RF as a whole. Because there is preliminary evidence that RF may be a useful supplement for the prevention of diabetic complications, clinical studies are warranted. For future clinical studies, it is recommended that details are provided regarding the preparation of RF and that the ratio of the individual components in RF is standardized so that results across studies can be compared.

2672. Effective acupuncture practice through diagnosis based on distribution of meridian pathways & related syndromes

By Chen Yemeng; Zheng Xin; Li Hui; Zhang Qunce; Wang Tianfang

This article discusses the importance of acupuncture practice utilizing diagnosis and distribution of various meridians and connecting channels based on meridian theory. The meridian system is considered as basic anatomy for acupuncture, so the corresponding pathways and related syndromes of different channels should play a key role in differentiation, known as meridian-related pattern differentiation. Since this doctrine originated in ancient times and was not so well developed in later generations, many acupuncturists are not able to utilize it efficiently. The authors survey how this doctrine was weakened during the past century, especially in acupuncture education for foreigners, and how this important method is currently being reinvigorated. This article also lays out the ways this doctrine can be applied clinically and introduces examples of a variety of indications including some difficult cases, such as whiplash injury, intervertebral disc herniation, oculomotor nerve paralysis, and eczema, etc.

2673. Delaying vascular aging with Chinese medicine: implications from an overview of the p53 and miR-34s family

By Wang Ming; Lei Yan
From Chinese journal of integrative medicine (2011), 17(8), 635-9, Language: English, Database: MEDLINE

p53 is an important target for studying vascular aging. However, as people gradually learned more about the miR-34s and the relationship between miR-34s and p53, new research idea emerged. This paper tries to elaborate the feature of p53, microRNA and miR-34s in-depth, analyze the regulatory action of miR-34s on p53, and offer some new prevention and treatment prospects about vascular aging in Chinese medicine.
2674. Principles of ethics review on traditional medicine and the practice of institute review board in China

By Wang Xiao-yun; Liang Zhao-hui; Huang Hui-ling; Liang Wei-xiong
From Chinese journal of integrative medicine (2011), 17(8), 631-4, Language: English, Database: MEDLINE

As one of the significant parts of medical science research in China, the research on Chinese medicine (CM) reflects the essence of healthcare tradition in the country both theoretically and clinically, and embodies the values of Chinese culture. Therefore, in the practice of ethics review on CM research protocols, besides abiding by the contemporary prevalent international principles and guidelines on bioethics, which emphasizes the scientific and bioethical value of the study, we should also stress the CM theoretical background and relevant clinical experience in the framework of Chinese culture and values. In this paper, we went over the traits of CM clinical research and the experience from the practice of ethics review by the institution review board for bioethics, and then attempted to summarize the key points for the bioethics review to CM researches in China, so as to serve as reference for the bioethics review to traditional and alternative medicine researches.

~0 Citings

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2675. Review of research approach on allergens of Shuanghuanglian injection and its important research strategy of susceptibility gene

By Zhao Yubin; Xiao Ying; Xie Yanming; Li Yuanyuan

Reviewing the progress on study about the major allergen of Shuanghuanglian injection in recent years, resulted in that individual differences of anaphylactic shock are closely related with HLA gene polymorphism. Basing on this, we put forward the research strategy on susceptibility gene of important allergen of Shuanghuanglian injection based on the theory of genetic fingerprints, in order to make sure about the relationship the major allergen of Shuanghuanglian injection and HLA-DRB gene polymorphism and specificity IgE antibody, and to clarify the allergic reaction loci reduced allergic reactions, which can provide the reference data for the study on mechanisms for anaphylactic reaction of Shuanghuanglian injection, and research ideas for the sensitization mechanism of traditional Chinese medicine injection study.

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2676. Are herbal compounds the next frontier for alleviating learning and memory impairments? An integrative look at memory, dementia and the promising therapeutics of traditional chinese medicines

By Jesky Robert; Hailong Chen
From Phytotherapy research : PTR (2011), 25(8), 1105-18, Language: English, Database: MEDLINE

Recent advances in neuroscience have revealed a greater, in-depth understanding of the complexities associated with memory. Contemporary theories hold that an integral relationship between memory formation, stabilization and consolidation revolve around plasticity of neuronal networks. The associated requisite receptors α-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid (AMPA) and N-methyl-d-aspartate (NMDA) and cellular mechanisms surrounding plasticity (posed to incite molecular functionality), also display strong correlations in the pathogenesis of dementias. When the brain is in a diseased state as a result of malignant neurotransmission (i.e. in Alzheimer’s disease; AD), the homeostatic balance required for normal neuronal processes is disrupted, which leads to degeneration of neural circuitry. Present efforts to find new treatments aimed at reversing or halting neurodegeneration are immense, with increasing attention being placed on investigating various herbal medicines. A wide variety of herbal plants (i.e. Panax ginseng, Polygala tenuifolia, Acorus gramineus and Huperzia serrata, examined here within), extracts and compounds have, to date, already presented advantageous results when tested against known pathogenic markers related to AD-associated dementia. The efficaciousness of herbal medicines appears to be a modulatory effect on neurotrophins, kinases and their substrates that, in turn, initiate or take part in intracellular cascades related to memory processes.

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Traditional Chinese medicines have been widely investigated for the treatment of Alzheimer's disease (AD) because none of the current therapies—either the cholinesterase inhibitors or antagonist of N-methyl-d-aspartate receptors—has profound effects on halting the progression of AD. In recent years, scientists have isolated many active compounds from herbs, which can alleviate dementia and neurodegenerative syndrome with fewer side effects than conventional drugs and, thus, are regarded as promising drug candidates for AD therapy. In this review, we summarize the latest research progress on six herbs for AD therapy—Huperzia serrata, Amaryllidaceae family, Ginkgo biloba, Uncaria rhynchophylla, Polygona tenuifolia, and Salvia officinalis—and focus on the analysis of their active components and possible mechanisms of pharmacological actions on AD.

2678. Fangjiomics: in search of effective and safe combination therapies

By Wang Zhong; Liu Jun; Cheng Yiyu; Wang Yongyan
From Journal of clinical pharmacology (2011), 51(8), 1132-51, Language: English, Database: MEDLINE

Millennia-old Chinese medicine treats disease with many combination therapies involving ingredients used in clinic practice. Fangjiomics is the science of identifying and designing effective mixtures of bioactive agents and elucidating their modes of action beyond those of Chinese patent medicines. Omics profiling and quantitative optimal modeling have been used to associate the various responses with biological pathways related to disease phenotype. Fangjiomics seeks to study myriad compatible combinations that may act through multiple targets, modes of action, and biological pathways balancing on off-target and on-target effects. This approach may lead to the discovery of controllable array-designed therapies to combine less potent elements that are more effective collectively but have fewer adverse side effects than does any element singly.

2679. Red mold fermented products and Alzheimer's disease: a review

By Lee Chun-Lin; Pan Tzu-Ming
From Applied microbiology and biotechnology (2011), 91(3), 461-9, Language: English, Database: MEDLINE

Alzheimer's disease is seen mainly in individuals over the age of 65, and the morbidity rate increases with age. Regarding the health function of Monascus-fermented red mold rice (RMR), besides hypolipidemic and hypotensive effects, other health functions of RMR such as anti-oxidation, cancer prevention, anti-fatigue, and anti-obesity have also been reported. Many published studies have shown the efficacy of RMR in the prevention of Alzheimer's disease. The current article discusses and provides evidence to support the beneficial potential of RMR in the prevention of Alzheimer's disease by discussing the pathogenic factors of Alzheimer's disease and the secondary metabolites of Monascus.

2680. Traditional Chinese medicine herbs - are they safe for psoriatic patients?

By Bartosinska Joanna Patrycja; Pietrzak Aldona; Szepietowski Jacek; Dreher Jacob; Maciejewski Ryszard; Chodorowska Grazyna
From Folia histochemica et cytobiologica / Polish Academy of Sciences, Polish Histochemical and Cytochemical Society (2011), 49(2), 201-5, Language: English, Database: MEDLINE

Although traditional Chinese medicine (TCM) relies on remedies of natural origin, its use is not always safe as it can have not only beneficial but also deleterious effects. Psoriatic patients, disappointed by conventional treatment and unaware of the potential side effects of TCM preparations, are increasingly reaching for non-traditional therapeutic methods. This review presents brief characteristics of selected Chinese herbs self-prescribed by psoriatic patients. It is important that dermatologists should be able to recognize any potential hazards connected with current or previous taking of these herbs by their patients.
2681. Chinese herbal medicine in the treatment of ectopic pregnancy

By Qu Hai Bo; Dengfeng Wang; Wu Taixiang; Marjoribanks Jane; Ying Sun; Haijun Jia; Zhang Jing; Hu Lina
From Cochrane database of systematic reviews (Online) (2011), (7), CD006224, Language: English, Database: MEDLINE

BACKGROUND: Traditionally Chinese herbal medicine (CHM) has been used widely in Chinese hospitals to treat ectopic pregnancy. Many studies have been published supporting its use but the evidence has not been systematically reviewed. This is and update of the review published in 2007. OBJECTIVES: To determine the effectiveness and safety of CHM in the treatment of ectopic pregnancy. SEARCH STRATEGY: Computerised databases (CENTRAL (The Cochrane Library), MEDLINE, EMBASE, Chinese Biomedical Database, China National Knowledge Infrastructure, VIP, Traditional Chinese Medicine Database System) were searched from their inception to November 2010 for relevant trials. SELECTION CRITERIA: Randomised controlled trials (RCT) on the use of CHM for the treatment of ectopic pregnancy. DATA COLLECTION AND ANALYSIS: Original authors of the identified studies were contacted to determine the trial design and identify authentic RCTs. Two review authors extracted and analysed the data. MAIN RESULTS: The search identified 281 trials. Only two studies involving a total of 157 participants were confirmed to be authentic RCTs (Li 2004c; Zhao 2000). Both were of poor methodological quality with a high risk of conflicted interest and potential for bias in favour of the intervention. We could not reach a definitive conclusion from the results. The pooled result showed that adding a Western medicine to CHM resulted in a significantly higher treatment success rate than with CHM alone (RR 1.33, 95% CI 1.08 to 1.63). When CHM plus Western medicine was compared to CHM alone for the time to disappearance of abdominal pain, again the results favoured the arm that included Western medicine (RR -2.09, 95% CI -4.14 to -0.04). Results were inconsistent for the time required for human chorionic gonadotropin (beta-hCG) to return to normal. One study favoured CHM plus Western medicine over Western medicine (with or without placebo) (MD -6.68, 95% CI -11.49 to -1.87); when CHM plus Western medicine was compared to CHM alone the results favoured the arm that included Western medicine (MD -8.12, 95% CI -10.89 to -5.53). AUTHORS' CONCLUSIONS: We have not found any well-designed trials investigating Chinese herbal medicines in the treatment of ectopic pregnancy. We cannot support or refute any CHM preparation for clinical use on the basis of evidence from randomised controlled trials.

2682. Chinese medicine and the surgeon

By Leung Ping-Chung; Biji Sreedhar; Yeung Chung-Kwong
From Chinese journal of integrative medicine (2011), 17(7), 548-55, Language: English, Database: MEDLINE

The surgeon aims at a direct, complete removal of the pathology. In spite of the modern advancements of imaging facilities and precision instrumentations, unsatisfactory results and recurrences are not uncommon. This paper provides a general review of the four specific areas in surgery that would benefit from Chinese medicine. Extensive searches were made on four surgical areas based on available English language journals, viz. low-back pain, chronic ulcers, renal calculus, and enuresis in children, in the past 10 years. The quoted communications are mainly related to clinical evidences, while a smaller number of crucial laboratory reports are also included. Low-back pain, a most frequent orthopaedic problem, would benefit from acupuncture treatment. Chronic leg ulcers could achieve better results of healing using herbal supplements. Problems of renal stones, besides the conventional methods of removal, could be further supplemented with herbal drinks that aim at prevention of recurrences. Enuresis in children, an untreatable common condition, may respond well to acupuncture. Surgeons should keep an open mind. In case of difficulties, they could seriously consider options of traditional treatment.

2683. Male sexual dysfunction in Asia

By Ho Christopher Ck; Singam Praveen; Hong Goh Eng; Zainuddin Zulkifli Md
Sex has always been a taboo subject in Asian society. However, over the past few years, awareness in the field of men's sexual health has improved, and interest in sexual health research has recently increased. The epidemiology and prevalence of erectile dysfunction, hypogonadism and premature ejaculation in Asia are similar in the West. However, several issues are specific to Asian males, including culture and beliefs, awareness, compliance and the availability of traditional/complementary medicine. In Asia, sexual medicine is still in its infancy, and a concerted effort from the government, relevant societies, physicians and the media is required to propel sexual medicine to the forefront of health care.

2684. The effects and prospects of the integration of traditional Chinese medicine and Western medicine on andrology in China

By Ma Wei-Guo; Jia Jin-Ming

Andrology has a long history in traditional Chinese medicine (TCM) discussions concerning andropathies, and documentation of relevant therapeutic methods abound in the ancient literature on TCM. Integrated treatment combining TCM and Western medicine has seen both broad and in-depth development, with formidable status in the field of modern andrology in China. This article attempts to demonstrate the unique advantage of integrated treatment in the therapy of andropathies through a review of the ancient literature on andrology in the field of TCM and on the integrative treatment of prostatic diseases, sexual dysfunction, male infertility and late-onset hypogonadism. There is a need for the advancement of a medical theory that integrates TCM and Western medicine practices to create a new therapeutic system with standardized therapeutic and evaluative protocols for diseases involving male sexual health.

2685. Andrology in China: current status and 10 years' progress

By Hong Kai; Xu Qing-Quan; Zhao Yong-Ping; Gu Yi-Qun; Jiang Hui; Wang Xiao-Feng; Zhu Ji-Chuan

Andrology has a long history in traditional Chinese medicine. There are records of male sexual health, male sexual dysfunction and male infertility from over thousands of years ago. Modern andrology in China had a late start, with the Chinese Andrology Association founded in 1995. Within last decade, andrology in China has grown rapidly. In this review article, we summarized the progress of andrology in last 10 years and outlined the current status of Chinese andrology with a special focus on progress in male erectile dysfunction, prostate diseases, male infertility and male hormonal contraception.

2686. Cognition research and constitutional classification in Chinese medicine

By Wang Ji; Li Yingshuai; Ni Cheng; Zhang Huimin; Li Lingru; Wang Qi

In the Western medicine system, scholars have explained individual differences in terms of behaviour and thinking, leading to the emergence of various classification theories on individual differences. Traditional Chinese medicine has long observed human constitutions. Modern Chinese medicine studies have also involved study of human constitutions; however, differences exist in the ways traditional and modern Chinese medicine explore individual constitutions. In the late 1970s, the constitutional theory of Chinese medicine was proposed. This theory takes a global and dynamic view of human differences (e.g., the shape of the human body, function, psychology, and other characteristics) based on arguments from traditional Chinese medicine. The establishment of a standard for classifying constitutions into nine modules was critical for clinical application of this theory. In this review, we describe the history and recent research progress of this theory, and compare it with related studies in the western medicine system. Several research methods, including philology, informatics, epidemiology, and molecular biology, in classifying constitutions used in the constitutional theory of Chinese medicine were discussed. In summary, this constitutional theory of Chinese medicine can be used in clinical practice and would contribute to health control of patients.
2687. The phlegm theory of gastric cancer

By Shi Jun; Wei Pin-kang


Based on years of ancient literature research and clinical experience, Professor Pin-kang Wei developed the phlegm theory of gastric cancer. In light of the properties of gastric cancer and the method of differentiating syndromes within the traditional Chinese medicine (TCM) paradigm, it is believed that gastric cancer is closely related with phlegm. Much ancient literature regarding the relationship between phlegm and gastric cancer was reviewed to explain the rationale and academic inheritance of the phlegm theory. In this theory, gastric cancer is regarded as a form of phlegm stagnation and consists of phlegm core, phlegm collateral and phlegm contamination. In order to explain the mechanism of development, recurrence and metastasis of gastric cancer, phlegm contamination is regarded as the most fundamental cause and pathogenesis of gastric cancer. The therapy of resolving phlegm and dispersing nodules is suggested for the fundamental treatment of gastric cancer.

2688. Application of functional MRI on evaluation of cholinergic drugs and other neurotransmitter drugs and its prospect in traditional Chinese medicine evaluation

By Feng Tianjiao; Zhang Yao; Zhang Zhanjun; Wang Yongyan


This article summarizes the progress of the application of functional magnetic resonance image (fMRI) on neuropharmacology. Cholinergic drugs are types of neurotransmitters which are usually used to treat neurological disorders. fMRI is widely used in the research of evaluation of cholinergic drugs. This article systematically summerizes the research of drug evaluation on memory, attention, emotion and vision by fMRI using the cholinergic drugs for example. Combined with the charactors and disciplines of traditional Chinese medicine (TCM), this article also makes a prospect of the application of fMRI on traditional Chinese medicine evaluation, especially the drugs on brain disease and emotional modulation.

2689. Modulating gut microbiota as an anti-diabetic mechanism of berberine

By Han Junling; Lin Huiling; Huang Weiping


Berberine, one of the main constituents of a Chinese traditional herb used to treat bacterial diarrhea, has an effect of lowering glucose, which has been recently confirmed by many studies. However, the mechanism of berberine's antidiabetic effect has not yet been well explained. Recent evidence suggests that the gut microbiota composition is associated with obesity and type 2 diabetes, which are closely associated with a low-grade inflammatory state. The protective effect against diabetes of gut microbiota modulation with probiotics or antibiotics has been confirmed in recent observations. Berberine has significant antimicrobial activity against several microbes through inhibiting the assembly function of FtsZ and halting the bacteria cell division. Because berberine acts topically in the gastrointestinal tract and it is poorly absorbed, berberine might modulate gut microbiota without systemic anti-infective activity. Our hypothesis is that gut microbiota modulation may be one mechanism of the antidiabetic effect of berberine. Our hypothesis may provide a novel explanation for berberine's therapeutic effect in patients with diabetes mellitus.
Polycystic ovary syndrome (PCOS) is a common endocrine disorder that is characterized by chronic hyperandrogenic anovulation leading to symptoms of hirsutism, acne, irregular menses, and infertility. Multiple metabolic and cardiovascular risk factors are associated with PCOS, including insulin resistance, obesity, type 2 diabetes, hypertension, inflammation, and subclinical atherosclerosis. However, current treatments for PCOS are only moderately effective at controlling symptoms and preventing complications. This article describes how the physiological effects of major complementary and alternative medicine (CAM) treatments could reduce the severity of PCOS and its complications. Acupuncture reduces hyperandrogenism and improves menstrual frequency in PCOS. Acupuncture's clinical effects are mediated via activation of somatic afferent nerves innervating the skin and muscle, which, via modulation of the activity in the somatic and autonomic nervous system, may modulate endocrine and metabolic functions in PCOS. Chinese herbal medicines and dietary supplements may also exert beneficial physiological effects in PCOS, but there is minimal evidence that these CAM treatments are safe and effective. Mindfulness has not been investigated in PCOS, but it has been shown to reduce psychological distress and exert positive effects on the central and autonomic nervous systems, hypothalamic-pituitary-adrenal axis, and immune system, leading to reductions in blood pressure, glucose, and inflammation. In conclusion, CAM treatments may have beneficial endocrine, cardiometabolic, and reproductive effects in PCOS. However, most studies of CAM treatments for PCOS are small, nonrandomized, or uncontrolled. Future well-designed studies are needed to further evaluate the safety, effectiveness, and mechanisms of CAM treatments for PCOS.
With the development of the knowledge economy, knowledge has become one of the most important resources for social progress and economic development. Some countries have proposed measures for the protection of their own traditional knowledge. Traditional Chinese medicine belongs to the category of intangible cultural heritage because it is an important part of Chinese cultural heritage. Today the value of traditional knowledge of Chinese medicine has been widely recognized by the domestic and international public. This paper discusses the definition of traditional knowledge of Chinese medicine and its protection, and evaluates research on its classification. We review the present status of the protection of traditional knowledge of Chinese medicine and tentatively put forward some possible ideas and methods for the protection of traditional knowledge of Chinese medicine. Our goal is to find a way to strengthen the vitality of traditional Chinese medicine and consolidate its foundation. We believe that to establish a suitable sui generis system for traditional knowledge, a more favorable environment for the preservation and development of traditional Chinese medicine will ultimately be created.

2693. The fundamental theory of traditional Chinese medicine and the consideration in its research strategy
By Li Zhenji; Xu Chunbo
From Frontiers of medicine (2011), 5(2), 208-11, Language: English, Database: MEDLINE
Stressing the uniqueness and complexity of traditional Chinese medicine (TCM) theory system, this paper analyzes the characteristics of TCM as a discipline from four perspectives: scientific nature, fundamental theory, clinical practice, and pharmacological action. It suggests that when the research strategy of TCM theory is designed, the core theory of TCM should be emphasized on the theoretical research on TCM original thinking theory, TCM theory, Chinese materia medica and formulas, acupuncture and moxibustion, meridians and collaterals, and other related fields. Researchers and practitioners should ensure that the basic research on TCM theory is based on clinical practice, research methods (both traditional and contemporary) are exploited, and methodological innovation is underscored. The rule of TCM development should be followed and the characteristics and advantages of TCM carried forward. Meanwhile, the methods and theory of contemporary science and technology should be exploited to fulfill the goal of inheriting, enriching, and developing the fundamental theory of TCM.

2694. Analysis on the distinguishing features of traditional Chinese therapeutics and related statistical issues
By Hu Jingqing; Qiao Jie; Kang Deying; Liu Baoyan
Traditional Chinese medicine (TCM) is one of the rarely existing ancient traditional medicines that hold systematic theories as well as preventative and therapeutic methods for diseases in practice. From the 1950s, such research methods as mathematics, statistics, and data mining (DM) have been gradually introduced to TCM studies, making it more scientific. Meanwhile, the distinct features of TCM theories and diagnostic-model have constantly challenged the methodology of statistics. This paper introduces the following scientific features of traditional Chinese therapeutics: 1) its goal is to balance the functions and conditions of human body; 2) it emphasizes on holism and individualization; 3) it stresses the longitudinal regulation and evaluation mode, which is a circle of syndrome diagnosis, treatment and evaluation; 4) the interventions of TCM are abundant, compound and natural; and 5) humanistic thought is everywhere. Some statistical problems are raised based on these features. First, complex statistical methods that can analyze subjective indexes and latent variables, multidimensional and multistage data, non-equilibrium designed studies, and longitudinal data are required. Second, comprehensive evaluation on multiple-target mechanism has been brought in by combination treatment. Third, there is a need to analyze how humanity and related cultural factors may influence the effect of interventions. Thus, promoting implemented studies of statistics as well as carrying out the TCM scientific propositions have become the common expectations of both TCM and modern medicine.

2695. Overview of the quality standard research of traditional Chinese medicine

Traditional Chinese medicine (TCM) has been widely used for the prevention and treatment of various diseases for a long time in China. Due to its proven efficacy, wide applications, and low side effect, TCM has increasingly attracted worldwide attention. However, one of the biggest challenges facing the clinical practice of TCM is the uncontrollable quality. In this review, the progress of the development and the current status of quality standard as well as new quality control techniques introduced in Chinese Pharmacopoeia (2010 edition), such as liquid chromatography hyphenated mass spectrometry (LC-MS), fingerprint, quantitative analysis of multicomponents by single-marker (QAMS), thin layer chromatography bio-autographic assay (TLC-BAA), and DNA molecular marker technique, are briefly overviewed.

~0 Citings
2699. Thinking and practice of accelerating transformation of traditional Chinese medicine from experience medicine to evidence-based medicine

By Liu Baoyan; Zhang Yanhong; Hu Jingqing; He Liyun; Zhou Xuezhong


The gradual development of Chinese medicine is based on constant accumulation and summary of experience in clinical practice, but without the benefit of undergoing the experimental medicine stage. Although Chinese medicine has formed a systematic and unique theory system through thousands of years, with the development of evidence-based medicine, the bondage of the research methods of experience medicine to Chinese medicine is appearing. The rapid transition and transformation from experience medicine to evidence-based medicine have become important content in the development of Chinese medicine. According to the features of Chinese medicine, we propose the research idea of "taking two ways simultaneously," which is the study both in the ideal condition and in the real world. Analyzing and constructing the theoretical basis and methodology of clinical research in the real world, and building the stage for research technique is key to the effective clinical research of Chinese medicine. Only by gradually maturing and completing the clinical research methods of the real world could we realize "taking two ways simultaneously" and complementing each other, continuously produce scientific and reliable evidence of Chinese medicine, as well as transform and develop Chinese medicine from experience medicine to evidence-based medicine.

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2700. Exploring the methodology and application of clinical pathway in evidence-based Chinese medicine

By Wang Sicheng; Yu He; Liu Jianping; Liu Baoyan


At present, clinical pathway has become one of the most important health care reform measures in many countries. In this study, the authors introduced basic concepts and explored the application of the clinical pathway of evidence-based Chinese medicine incorporated with the methodology from the concepts of management, evidence-based medicine, operational research and health economics. Such concepts provide examples and experiences, on which the application of clinical pathway in Chinese medicine practice in China can be based.

~0 Citings

2701. Mechanism of acupuncture regulating visceral sensation and mobility

By Rong Peijing; Zhu Bing; Li Yuqing; Gao Xinyan; Ben Hui; Li Yanhua; Li Liang; He Wei; Liu Rupeng; Yu Lingling

From Frontiers of medicine (2011), 5(2), 151-6, Language: English, Database: MEDLINE

Chinese ancient medical scientists have long focused on the internal and external contacts between acupoints on the surface of the body and the viscera. The Miraculous Pivot (it is one of the earliest medical classics in China) stated, "Twelve regular channels belong to the zang-fu organs internally, and connect to the extremities and joints externally." Traditional Chinese medicine considers acupoints as defined areas where the Qi of viscera and meridians are transfused. These include the reaction points of visceral diseases on the body surface as well as the acupuncture trigger points that promote the flow of Qi and blood, and regulate visceral function. Chinese ancient medical scientists classified the specificity of the main acupoints in the body based on the meridian doctrine, which has been instructing clinical application for about 2000 years. Laws on the domino effect of acupoints have mainly focused on conclusions to clinical experiences. Indications of some acupoints exceed the practical paradigm since the excessive extension occurred during theory derivation. The current research direction on acupuncture focuses on three aspects: the effectiveness of acupuncture and moxibustion; the relevances and associations between meridians and viscera; and the physical and chemical properties and relevant physical basis of acupoints. The relevance between meridians and viscera is the central theory in the meridian doctrine, and acupoints are regarded as an important link in the relationship between meridians and viscera. Specific relationships between acupoints and target organs exist. Stimulating different acupoints on the body surface can help deal with different diseases, especially visceral diseases. In addition, acupoints have a dual function of reflecting and treating visceral diseases. There is no systemic research available on acupoint specificity, despite current knowledge and clinical experiences, which results in a weak foundation for acupuncture theory. This study focuses on the relevance and associations between meridians and viscera. A summary of the mechanisms of acupuncture regulating visceral sensation and mobility and the specific relationships between acupoints and their target organs are presented in this review.
2702. Developments in cancer prevention and treatment using traditional Chinese medicine

By Lin Hongsheng; Liu Jie; Zhang Ying
From Frontiers of medicine (2011), 5(2), 127-33, Language: English, Database: MEDLINE

Through the joint efforts of several generations of practitioners in traditional Chinese medicine (TCM) and integrated medicine of oncology, we have made some achievements in cancer treatment using TCM in over 50 years, including treatment concepts, methods, and basic and clinical research. Currently, TCM plays an indispensable role in cancer prevention and treatment. However, we also clearly recognize that there are some issues that have yet to be resolved. In the future, cancer treated with TCM will face unprecedented opportunities and challenges. This article reviews the developments of TCM in the treatment of cancer.

~1 Citing

2703. Practices, challenges, and opportunities: HIV/AIDS treatment with traditional Chinese medicine in China

By Wang Jian; Zou Wen
From Frontiers of medicine (2011), 5(2), 123-6, Language: English, Database: MEDLINE

Traditional Chinese medicine (TCM) has become widely used in the treatment of acquired immune deficiency syndrome (AIDS) in China in recent years. In this article, we summarize the recent major developments in human immunodeficiency virus/AIDS (HIV/AIDS) treatment with TCM. The use of TCM is associated with preventing or alleviating HIV-related symptoms, reducing treatment side effects, and improving the quality of life. The potential beneficial effects of TCM should be confirmed through extensive and rigorous trials.

~0 Citings

2704. Construction of the vessel-collateral theory and its guidance for prevention and treatment of vasculopathy

By Wu Yiling

According to the self-discipline of traditional Chinese medicine, vessel-collateral theory was constructed systematically, which was important to improving prevention and treatment level of vasculopathy. The hypothesis of “homeostasis (Cheng), compensatory auto-adaptation (Zhi), regulation (Tiao) and equilibrium (Ping)” based on the “qi-yin-yang-five elements” coupled with the ying (nutrients)-wei (defense) theory, has become the core content of the vessel-collateral theory. Clinical and laboratory trials have been developed to further confirm the scientific connotations of the hypothesis, such as Tong Xin Luo capsule, as the representative drugs of vessel collateral theory, showed good efficacy in protecting the vascular endothelium, stabilizing the vulnerable plaque and reducing the blood vessel spasm. "Sou, ti, shu, tong" was the characteristics of Tong Xin Luo capsule in treating "microvascular damage" as the core mechanism of acute myocardial infarction, cerebral infarction and microvascular complications of diabetes. Shen Song Yang Xin capsules in the treatment of arrhythmia have made integrated adjustment advantage. Qi Li Qiang Xin capsules have been made treating both manifestation and root cause of chronic heart failure. These research have improved prevention and treatment level of major vascular system diseases.

~0 Citings

2705. Chinese herbal medicine for diabetic peripheral neuropathy

By Chen Wei; Zhang Yin; Liu Jian Ping
From Cochrane database of systematic reviews (Online) (2011), (6), CD007796, Language: English, Database: MEDLINE
BACKGROUND: Chinese herbal medicine is frequently used for treating diabetic peripheral neuropathy in China. Many controlled trials have been undertaken to investigate its efficacy. OBJECTIVES: To assess the beneficial effects and harms of Chinese herbal medicine for people with diabetic peripheral neuropathy. SEARCH STRATEGY: We searched the Cochrane Neuromuscular Disease Group Specialized Register (15 June 2010), the Cochrane Central Register of Controlled Trials (CENTRAL) (Issue 2, 2010 in The Cochrane Library), MEDLINE (January 1966 to June 2010), EMBASE (January 1980 to June 2010), AMED (January 1985 to June 2010), Chinese Biomedical Database (CBM) (1979 to June 2010), Chinese National Knowledge Infrastructure Database (CNKI) (1979 to June 2010), and VIP Chinese Science and Technique Journals Database (1989 to June 2010). We searched for unpublished literature in the Chinese Conference Papers Database and Chinese Dissertation Database (from inception to March 2010). No language or publication restrictions were used. SELECTION CRITERIA: We included randomized controlled trials of Chinese herbal medicine (with a minimum of four weeks treatment duration) for people with diabetic peripheral neuropathy compared with placebo, no intervention, or conventional interventions. Trials of herbal medicine plus a conventional drug versus the drug alone were also included. DATA COLLECTION AND ANALYSIS: Two authors independently extracted data and evaluated trial quality. We contacted study authors for additional information. The data analyses were carried out using Review Manager 5.1 (Cochrane software). MAIN RESULTS: Thirty-nine randomized trials involving 2890 participants were included. All trials were conducted and published in China. Thirty different herbal medicines were tested in these trials, including four single herbs (extracts from a single herb), eight traditional Chinese patent medicines, and 18 self-concocted Chinese herbal compound prescriptions. The trials reported on global symptom improvement (including improvement in numbness or pain) and changes in nerve conduction velocity. There was inadequate reporting on adverse events in the included trials. Most of the trials did not mention whether they monitored adverse effects at all. Only two trials reported adverse events: one occurred in the control group in one trial and in which group was unclear in the other trial. Conclusions cannot be drawn from this review about the safety of herbal medicines due to inadequate reporting. Most of the trials were of low methodological quality and therefore the interpretation of any positive findings for the efficacy of the included Chinese herbal medicines for treating diabetic peripheral neuropathy should be made with caution. AUTHORS' CONCLUSIONS: Based on this systematic review, there is no evidence to support the objective effectiveness and safety of Chinese herbal medicines for diabetic peripheral neuropathy. No well designed, randomized placebo controlled trial with objective outcome measures has been conducted.

~0 Citings
2707. On the necessity of developing quality of life instruments in traditional Chinese medicine

By Hou Zheng-kun; Liu Feng-bin; Liang Ying-yu; Zhuang Kun-hai; Lin Chu-hua; Li Li-juan

The development of health-related quality of life (HRQL) instrument in traditional Chinese medicine (TCM) is increasing rapidly in China, but few studies focus on their necessity. This study explores the necessity of the development of TCM instruments from both theoretical and practice perspectives, and aims to explain whether the adoption of the cross-medical style is valid. Through theoretical analysis, both TCM and Western medicine instruments show the same objectives, whereas TCM instruments are more suitable for the Chinese social behavior, customs and expectations. In practical analysis, 47 TCM instruments were identified, among which 17 had 18 corresponding Western medical instruments. In the domains layer, except for physiological, psychological and social factors, TCM instruments focus more on the harmony between body and spirit, humanity and nature or human and society and the constitution, etc. In the facts layer, TCM instruments focus on the emotions, initiative social intercourse, TCM symptoms, diet, sleep, taste, feces and urine, etc. In addition, significant differences existed in the methods of information selection. There is no need to modify cross-medical style research except when TCM characteristic terms exist, but attention must be paid to the influence of culture in different areas. Therefore, the TCM instruments can resolve the limitations of the application of Western medical instruments to the Chinese setting, while also having remarkable abilities of information coverage and detection. Both forms of instruments have the capacity and requirement to inter-communicate with each other in order to serve the whole Chinese cultural system. Generally speaking, there is no need to modify the instruments in cross-medical style research. But this point requires further demonstration in the rigorous designed clinical trials.

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2708. Review on efficacy and health services research studies of complementary and alternative medicine in inflammatory bowel disease

By Joos Stefanie
From Chinese journal of integrative medicine (2011), 17(6), 403-9, Language: English, Database: MEDLINE

OBJECTIVE: To assess the evidence of the use and efficacy for complementary and alternative medicine (CAM) in inflammatory bowel disease (IBD). METHODS: A systematic literature search in MEDLINE was performed for randomized controlled trials (RCTs) in Crohn's disease and ulcerative colitis. Moreover, a selective literature search for health services research studies on the use of CAM in patients with IBD was performed. RESULTS: Health services research studies showed a high use of CAM in adult and pediatric patients with IBD worldwide. In contrast to the high use among IBD patients, there was a lack of high-quality data for many of the used CAM methods. Although most of the studies showed positive results, the methodological quality of most studies was rather low; therefore, the results had to be interpreted with caution. While there were many studies for probiotics and fish oil, RCTs for the highly used method homeopathy, for most herbal products, and for traditional Chinese medicine methods apart from acupuncture RCTs were completely lacking. CONCLUSIONS: The lack of high-quality studies might be the consequence of the problems: associated with the funding of clinical trials involving CAM. However, having the high user rates in mind, high-quality studies assessing efficacy and safety of those methods are urgently needed. Furthermore, there is a quality need for better representation of CAM in undergraduate and postgraduate medical education.

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2709. Research progress of anticarious Chinese herbal

By Gao Qiushuang; Bao Guangjie

Caries is a chronically infectious disease which happens to the hard tissue of the teeth and is the most common dental disease of human. Many scholars have devoted to research anticarigenics drugs and the Chinese herbal was considerably concerned. The paper briefly introduces kinds of anticarigenics Chinese herbals, such as Turkish galls, TFA and Magnolia.

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2710. Needle sticking method
By Wang Shang-Chen; Shan Wen-Zhe; Sun Shu-Fen

Needle sticking method, which can be combined with multiple needling techniques, has been attached with great importance in recent years by doctors in clinic. Combining with the clinical experiences, the authors expounded the needle sticking method through its unified concept, differences between needle sticking method, which was an acupuncture technique, and stuck needle which was an accident during acupuncture, selection of needles, manipulations, mechanism of treatment, range of application, attentions and advantages of popularization. It is held that the technique can be widely applied for treatment of acute and chronic diseases of various departments with filiform needles. Easy to be manipulated, understood and mastered, the technique is without side effect and valuable to be popularized.

~0 Citings

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2711. Illicium verum: a review on its botany, traditional use, chemistry and pharmacology
By Wang Guo-Wei; Hu Wen-Ting; Huang Bao-Kang; Qin Lu-Ping

ETHNOPHARMACOLOGICAL RELEVANCE: The fruit of Illicium verum Hook. f. (Chinese star anise) has long been used in traditional Chinese medicine and food industry with the actions of dispelling cold, regulating the flow of Qi and relieving pain. MATERIALS AND METHODS: A bibliographic investigation was carried out by analyzing recognized books including Chinese herbal classic, and worldwide accepted scientific databases (Pubmed, SciFinder, Scopus and Web of Science) were searched for the available information on I. verum. RESULTS: I. verum is an aromatic evergreen tree of the family Illiciaceae. It is sometimes contaminated with highly toxic Japanese star anise (I. anisatum L.) and poisonous star anise (I. lanceolatum A. C. Smith), which contain several neurotoxic sesquiterpenes. Traditional uses of I. verum are recorded throughout Asia and Northern America, where it has been used for more than 10 types of disorders. Numerous compounds including volatiles, seco-prezizaane-type sesquiterpenes, phenylpropanoids, lignans, flavonoids and other constituents have been identified from I. verum. Modern pharmacology studies demonstrated that its crude extracts and active compounds possess wide pharmacological actions, especially in antimicrobial, antioxidant, insecticidal, analgesic, sedative and convulsive activities. In addition, it is the major source of shikimic acid, a primary ingredient in the antiflu drug (Tamiflu). AIM OF THE REVIEW: This review summarizes the up-to-date and comprehensive information concerning the botany, traditional use, phytochemistry and pharmacology of I. verum together with the toxicology, and discusses the possible trend and scope for future research of I. verum.

~0 Citings

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2712. Epidemiology, quality and reporting characteristics of systematic reviews of traditional Chinese medicine interventions published in Chinese journals
By Ma Bin; Guo Jiwu; Qi Guoqing; Li Haimin; Peng Jiye; Zhang Yulong; Ding Yanqin; Yang Kehu
From PloS one (2011), 6(5), e20185, Language: English, Database: MEDLINE

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BACKGROUND: Systematic reviews (SRs) of TCM have become increasingly popular in China and have been published in large numbers. This review provides the first examination of epidemiological characteristics of these SRs as well as compliance with the PRISMA and AMSTAR guidelines. OBJECTIVES: To examine epidemiological and reporting characteristics as well as methodological quality of SRs of TCM published in Chinese journals. METHODS: Four Chinese databases were searched (CBM, CSJD, CJFD and Wanfang Database) for SRs of TCM, from inception through Dec 2009. Data were extracted into Excel spreadsheets. The PRISMA and AMSTAR checklists were used to assess reporting characteristics and methodological quality, respectively. RESULTS: A total of 369 SRs were identified, most (97.6%) of which used the terms systematic review or meta-analysis in the title. None of the reviews had been updated. Half (49.8%) were written by clinicians and nearly half (47.7%) were reported in specialty journals. The impact factors of 45.8% of the journals published in were zero. The most commonly treated conditions were diseases of the circulatory and digestive disease. Funding sources were not reported for any reviews. Most (68.8%) reported information about quality assessment, while less than half (43.6%) reported assessing for publication bias. Statistical mistakes appeared in one-third (29.3%) of reviews and most (91.9%) did not report on conflict of interest. CONCLUSIONS: While many SRs of TCM interventions have been published in Chinese journals, the quality of these reviews is troubling. As a potential key source of information for clinicians and researchers, not only were many of these reviews incomplete, some contained mistakes or were misleading. Focusing on improving the quality of SRs of TCM, rather than continuing to publish them in great quantity, is urgently needed in order to increase the value of these studies.

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2713. Search for antidiabetic constituents of medicinal food
By Nakamura Seikou; Matsuda Hisashi; Yoshikawa Masayuki

Many foods are known to have not only nutritive and taste values but also medicinal effects. In Chinese traditional medicine, the treatment using medicinal foods has been recommended highly. Recently, we examined the effects of the extract and constituents of several medicinal foods on experimental models of diabetes. In this paper, we focus on the bioactive constituents of four medicinal foods, namely the antidiabetic constituents from 1) the roots, stems and leaves of Salacia plants, 2) the male flowers of Borassus flabellifer, 3) the flower buds of Camellia sinensis, 4) the processed leaves of Hydrangea macrophylla var. thunbergii (Hydrangeae Dulcis Folium).

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2714. Randomized controlled trial of integrated traditional Chinese and western medicine treatment for posthepatitic cirrhotic ascites: a systematic review
By Chen Lei; Lu Zhi-Ping

OBJECTIVE: To research domestic general situation and quality of the clinical treatment of posthepatitic cirrhotic ascites in Integrated Traditional Chinese and Western Medicine. METHODS: Chose CNKI, VIP, Wang fang and CBM as data source and searched the literature of the clinical treatment of posthepatitic cirrhotic ascites in Integrated Traditional Chinese and Western Medicine which published officially from January 1980 to January 2010 and which received a Jaded score of 2 or greater to do a systematic evaluation, including the description of subjects, study design and methods, therapeutic efficacy and statistical methods. RESULTS: 136 articles in all met inclusion criteria and 58 articles which received a Jaded score of 2 or greater did this research. The main problems of domestic posthepatitic cirrhotic ascites as collected in Integrated Traditional Chinese and Western Medicine in 30 years included: randomized controlled trial design was unreasonable, lack of blinding, lack of standardized criteria, the sample size was small and lack of specific estimation methods, lack of compliance, case off and withdraw, ignoring adverse reaction and the research of life quality. CONCLUSION: The clinical treatment of posthepatitic cirrhotic ascites in Integrated Traditional Chinese and Western Medicine have a "personalized" and "diversity" character and the methods and standards of clinical research need to be improved.

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2715. Acupuncture for infertility: is it an effective therapy?
By Huang Dong-mei; Huang Guang-ying; Lu Fu-er; Stefan Dieterle; Andreas Neuer; Robert Greb
From Chinese journal of integrative medicine (2011), 17(5), 386-95, Language: English, Database: MEDLINE

Acupuncture has been used to treat infertility extensively, including ovulatory dysfunction, in vitro fertilization and embryo transfer (IVF-ET), and male infertility. This review summarizes the recent studies which investigated the role of acupuncture in infertility. In conclusion, most of the existing studies suggest a positive effect of acupuncture in infertility treatment. Firstly, acupuncture may improve ovulation by modulating the central and peripheral nervous systems, the neuroendocrine and endocrine systems, the ovarian blood flow, and metabolism. Secondly, acupuncture can improve the outcome of IVF-ET, and the mechanisms may be related to the increased uterine blood flow, inhibited uterine motility, and the amelioration of depression, anxiety and stress. Its effect on modulating immune function also suggests helpfulness in improving the outcome of IVF-ET. Finally, the studies suggest that acupuncture plays a positive role in male infertility, the mechanism of which is not yet clear. Even though a positive effect of acupuncture in infertility has been found, well-designed multi-center, prospective randomized controlled studies are still needed to provide more reliable and valid scientific evidence. Furthermore, it is urgent and necessary to clarify the mechanism of acupuncture for infertility.

~0 Citings

2716. Experimental research progress of warming yang and reinforcing kidney of Chinese medicine to promote the differentiation of bone marrow stromal cells
By Chen Wei-Heng; Wang He-Ming

Bone marrow stromal cells (BMSCs), a kind of stem cells residing in bone marrow, have self-renewal, high proliferative capacity and the potential of multilineage differentiation. It has a good prospect in application of the cell replacement therapy, the gene therapy and the tissue engineering and so on. As the content of BMSCs is extremely low in bone marrow, BM-SCs must be amplified in vitro and induced to differentiation to meet the clinical needs. Researches of the recent years suggest there is a very promising way that Chinese medicine could induce BMSCs proliferation, differentiation. Based on the Chinese medicine theory, "the kidney generating marrow and dominating bone" and "kidney storing essence, essence and marrow", the TCM scholars have done some researches to explore the function of warming yang and reinforcing kidney of Chinese medicine to promote bone marrow stromal cells and found that these drugs can promote the BMSCs to proliferate and to differentiate into osteogenic, cartilage and nerve cells. This article elaborates and presents the researches on this aspect.

~0 Citings

2717. Thinking and practice of animal ethology in study of cold and hot nature of traditional Chinese medicine
By Xing Xiaoyan; Zhao Yanling; Kong Weijun; Jia Lei; Wang Jiabo; Yan Dan; Li Ruisheng; Xiao Xiaohe

From the view of macroscopic animal ethology combined with computer and modem image processing technique, by monitoring the temperature tropism of animal affected by traditional Chinese medicine (TCM) with different Cold and Hot natures and obtaining many behavior parameters which were difficult to assess in direct observation, the differences between the Cold and Hot nature of TCM were evaluated and presented. This method could real-time, intuitively and objectively, qualitatively and quantitatively monitor the temperature tropism of experimental animals with no disturbance. Further, the Cold and Hot nature of TCM can be expressed from the whole animal level. This method met to the application peculiarity of TCM and suited for the TCM theoretical system. It is a attempt for the study of drug nature of TCM. It also contributed to elucidate the objective authenticity and scientific connotation of Cold and Hot nature of TCM, and express the inherent connection of this nature and the temperature tropism of animal. In this review, a new point and technology platform was provided for establishing an objective method for evaluating the Cold and Hot nature of TCM, which are corresponding with the feature of the application of TCM.

~0 Citings
2718. Review on experiment of traditional Chinese medicine treating to osteoporosis
By Du Guiyou; Cao Chunyu

Searched the articles between 2000 and 2010, found out and summarized the articles with the topic on the experiment and new techniques of traditional Chinese medicine treating to osteoporosis. The preventive and therapeutic effect to osteoporosis by traditional Chinese medicine had been developed in the past 10 years. The study on standardization of experimental drugs, and the mechanism study with modern cell culture techniques should be enhanced.

~0 Citings

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2719. Advances in determination of multi-residue pesticides in traditional Chinese medicine by GC-MS
By Liu Dongjing; Xue Jian; Wu Xiaobo

The current methods of preparation of pesticide residue analysis in traditional Chinese medicine were summarized in this paper. And the new preparation techniques used in recent years were reviewed, which included solid-phase micro-extraction (SPME), QuECHERS, matrix solid-phase dispersion (MSPD). In addition, the determination method of the pesticide residue methods in the traditional Chinese medicine were also included in the paper, and analysed the problem in the determination based on the characteristics of TCMs.

~0 Citings

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2720. The medicinal use of realgar (As S ) and its recent development as an anticancer agent
By Wu Jinzhu; Shao Yanbin; Liu Jialiang; Chen Gang; Ho Paul C

ETHNOPHARMACOLOGICAL RELEVANCE: Arsenicals have been known as poisons and paradoxically as therapeutic agents. In the early 1970s, Chinese physicians from Harbin revived the medicinal use of arsenicals as anticancer agents. Notable success was observed in the treatment of acute promyelocytic leukemia (APL) with arsenic trioxide (ATO). The FDA approved ATO injection in the year 2000 for the treatment of APL. In contrast, the clinical use of the other arsenical, realgar (As S ), is currently much less established, though it has also long been used in medical history. According to ancient medical records and recent findings in clinical trials, realgar was found as effective as ATO, but with relatively good oral safety profiles even on chronic administration. These give realgar an advantage over ATO in maintenance treatment. Though there is increasing understanding on the mechanisms of action and metabolic profiles of ATO, similar aspects of realgar are unclear to date. MATERIALS AND METHODS: We outline the use of realgar in traditional medicines, especially in traditional Chinese medicines (TCM) from ancient times to present. The clinical and experimental observations on realgar as a therapeutic agent are described with an emphasis on those findings that may imply the rationale and future directions of realgar as a potential anticancer drug candidate. RESULTS: There is an increasing understanding in the mechanisms of action of realgar as an antileukemic agent. However, there is still sparse information on its metabolism and toxicity profiles. CONCLUSIONS: Realgar is poorly soluble in water. Recently, several types of realgar nanoparticles (NPs) have been developed. Some of these realgar NPs also possess the unique optical properties of quantum dots. The activities and bioavailability of realgar NPs are much influenced by their sizes, making realgar an interesting biomedical and pharmaceutical research candidate.

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2721. Potential role of metabolomics approaches in the area of traditional Chinese medicine: as pillars of the bridge between Chinese and Western medicine
By Wang Xijun; Sun Hui; Zhang Aihua; Sun Wenjun; Wang Ping; Wang Zhigang

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Traditional Chinese medicine (TCM) is a holistic approach to health that attempts to bring the body, mind and spirit into harmony. Entering 21st century, TCM is getting more and more popular in the whole world for improving health condition of human beings and preventing or healing diseases, especially shows great advantages in early intervention, combination therapies and personalized medicine, etc. However, like almost all other ethnopharmacology, TCM also faces severe challenges and suffers from insufficient modern research owing to lack of scientific and technologic approaches, restricts the development of TCM in the world. Fortunately, a novel analytical technique, metabolomics (or metabonomics), adopts a 'top-down' strategy to reflect the function of organisms from terminal symptoms of metabolic network and understand metabolic changes of a complete system caused by interventions in holistic context. Its property consists with the holistic thinking of TCM, may beneficially provide an opportunity to scientifically express the meaning of evidence-based Chinese medicine, such as Chinese medicine syndromes (CMS), preventive treatment, action of Chinese medicine, Chinese medical formulae (CMF) and acupuncture efficacy. This review summarizes potential applications of robust metabolomics apporoaches in the area of traditional oriental medicine, and highlights the key role of metabolomics to resolve special TCM issues.

~0 Citings

2722. Process on researching methods of ecology of Chinese traditional medicine resources
By Zhou Yingqun; Cao Hailu; Zhao Runhuai; Chen Shilin

Though the study on ecology of Chinese traditional medicinal resources methods has achieved great progress in recent years, it is not able to catch the pace of the development of ecology science. Based on the analysis of recent literatures about ecology development trend and Chinese traditional medicinal ecology methods, the progress of Chinese traditional medicinal ecology methods was reviewed, and future study trend was discussed.

~0 Citings

2723. Application of digital earth technology in research of traditional Chinese medicine resources
By Liu Jinxin; Liu Xinxin; Gao Lu; Wei Yingqin; Meng Fanyun; Wang Yongyan

This paper describes the digital earth technology and its core technology-"3S" integration technology. The advance and promotion of the "3S" technology provide more favorable means and technical support for Chinese medicine resources survey, evaluation and appropriate zoning. Grid is a mature and popular technology that can connect all kinds of information resources. The author sums up the application of digital earth technology in the research of traditional Chinese medicine resources in recent years, and proposes the new method and technical route of investigation in traditional Chinese medicine resources, traditional Chinese medicine zoning and suitability assessment by combining the digital earth technology and grid.

~0 Citings

2724. Molecular methods for authentication of Chinese medicinal materials
By Wang Chuanyi; Guo Baolin; Xiao Peigen

The resource authentication is required for quality assurance and control of Chinese medicine. This review provides an informative introduction to molecular methods used for authentication of Chinese medicinal materials. The technical features of the methods based on sequencing, polymerase chain reaction (PCR) and hybridization are described, merits and demerits and development of the molecular methods in identification of Chinese medicinal materials are discussed.

~0 Citings
2725. Huangqi injection (a traditional Chinese patent medicine) for chronic heart failure: a systematic review

By Fu Shufei; Zhang Junhua; Menniti-Ippolito Francesca; Gao Xiumei; Galeotti Francesca; Massari Marco; Hu Limin; Zhang Boli; Ferrelli Rita; Fauci Alice; et al
From PloS one (2011), 6(5), e19604, Language: English, Database: MEDLINE

BACKGROUND: Chronic heart failure (CHF) is a global public health problem. Therefore, novel and effective drugs that show few side-effects are needed. Early literature studies indicated that Huangqi injection is one of the most commonly used traditional Chinese patent medicines for CHF in China. As a large number of clinical studies has been carried out and published, it is essential to evaluate the effectiveness and safety of Huangqi injection. Therefore, we carried out this systematic review under the support of the framework of the Joint Sino-Italian Laboratory (JoSIL).

OBJECTIVES: To evaluate the efficacy and safety of Huangqi injection for CHF according to the available scientific knowledge.

METHODS: An extensive search including PubMed, EMBASE, CBM, the Cochrane Library and Chinese literature databases was performed up to July 2008. Clinical trials regarding Huangqi injection for the treatment of CHF were searched for, irrespective of languages. The quality of each trial was assessed according to the Cochrane Reviewers' Handbook 5.0, and RevMan 5.0 provided by the Cochrane Collaboration and STATA 9.2 were used for data analysis.

RESULTS: After selection of 1,205 articles, 62 RCTs and quasi-RCTs conducted in China and published in Chinese journals were included in the review. The methodological quality of the trials was low. In most trials inclusion and exclusion criteria were not specified. Furthermore, only one study evaluated the outcomes for drug efficacy after an adequate period of time. For these reasons and because of the different baseline characteristics we did not conduct a meta-analysis.

CONCLUSIONS: Although available studies are not adequate to draw a conclusion on the efficacy and safety of Huangqi injection (a traditional Chinese patent medicine), we hope that our work could provide useful experience on further studies on Huangqi injections. The overall level of TCM clinical research needs to be improved so that the efficacy of TCM can be evaluated by the international community and possibly some TCM can enter into the international market.

~0 Citings

2726. The TCM etiology, pathogenesis and differential treatment for Sjogren's syndrome

By Zhang Shui-Yan

~0 Citings

2727. Berberine as a promising safe anti-cancer agent - is there a role for mitochondria?

By Diogo Catia V; Machado Nuno G; Barbosa Ines A; Serafim Teresa L; Burgeiro Ana; Oliveira Paulo J
From Current drug targets (2011), 12(6), 850-9, Language: English, Database: MEDLINE

Metabolic regulation is largely dependent on mitochondria, which play an important role in energy homeostasis. Imbalance between energy intake and expenditure leads to mitochondrial dysfunction, characterized by a reduced ratio of energy production (ATP production) to respiration. Due to the role of mitochondrial factors/events in several apoptotic pathways, the possibility of targeting that organelle in the tumor cell, leading to its elimination is very attractive, although the safety issue is problematic. Berberine, a benzyl-tetra isoquinoline alkaloid extracted from plants of the Berberidaceae family, has been extensively used for many centuries, especially in the traditional Chinese and Native American medicine. Several evidences suggest that berberine possesses several therapeutic uses, including anti-tumoral activity. The present review supplies evidence that berberine is a safe anti-cancer agent, exerting several effects on mitochondria, including inhibition of mitochondrial Complex I and interaction with the adenine nucleotide translocator which can explain several of the described effects on tumor cells.

~1 Citing
2728. A general review of research on historical facts of English translation of ancient traditional Chinese medicine books

By Qiu Le


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2729. Chemical constituents and pharmacological properties of Poria cocos

By Rios Jose-Luis


Poria cocos (Polyporaceae) is a saprophytic fungus that grows in diverse species of Pinus. Its sclerotium, called fu-ling or hoelen, is used in traditional Chinese and Japanese medicine for its diuretic, sedative, and tonic effects. Various studies of this fungus have demonstrated its marked anti-inflammatory activity in different experimental models of acute and chronic inflammation. It is widely used as a constituent of many preparations in Asian medicine, but the number of research papers on its clinical properties is insufficient for establishing its efficacy and safety from a scientific point of view. In this review, we have compiled all the published data concerning the chemistry, pharmacology, and clinical uses of this drug in order to evaluate its clinical interest for future use against various pathologies in which inflammation and immunodepression are implicated. We selected the papers for review on the basis of their ethnopharmacological relevance, using the most relevant databases for the biomedical sciences. Studies on various fungus extracts as well as on the major phytochemical compounds (polysaccharides and triterpenoids) present in Poria cocos comprised the principal objectives of this review. In several of the studies reviewed, the inhibitory effects of triterpenes on phospholipase A (2) (PLA (2)) have been clearly demonstrated. In addition, the inhibitory effects of Poria cocoson the secretion of different cytokines from human peripheral blood monocytes have also been described. Triterpenoids are known to have a pivotal influence on certain diseases such as rheumatoid arthritis, psoriasis, autoimmune uveitis, septic shock, and possibly bronchial asthma, while polysaccharides can potentiate the immune response. Reviewing the literature, we found that polysaccharides from Poria cocos enhanced the secretion of immune stimulators and suppressed the secretion of immune suppressors, thus potentiating the immune response. In addition, they showed antitumor activity against different cancer cell lines. This activity is associated with their capacity to inhibit angiogenesis by downregulating both NF-κB and the induction of NF-κB/Rel translocation.

~0 Citings

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2730. LC-MS/MS determination and pharmacokinetic study of five flavone components after solvent extraction/acid hydrolysis in rat plasma after oral administration of Verbena officinalis L. extract

By Duan Kunfeng; Yuan Zhifang; Guo Wei; Meng Yan; Cui Yang; Kong Dezhi; Zhang Lantong; Wang Na

From Journal of ethnopharmacology (2011), 135(2), 201-8, Language: English, Database: MEDLINE

ETHNOPHARMACOLOGICAL RELEVANCE: Traditional Chinese medicine (TCM) has been used in clinical practice for several thousand years. TCM has played an indispensable role in the prevention and treatment of diseases, especially the complicated and chronic ones. Pharmacokinetic study on active constituents in herbal preparations is a good way for us to explain and predict a variety of events related to the efficacy and toxicity of TCM. AIM OF THE STUDY: A selective and sensitive HPLC-MS/MS method was first developed and validated for the determination of luteolin, kaempferol, apigenin, quercetol, and isorhamnetin in rat plasma. MATERIALS AND METHODS: The LC system consisted of an Agilent Technologies Series 1200 system (Agilent, USA) equipped with an automatic degasser, a quaternary pump, and an autosampler. Chromatographic separations were performed on a Waters SunFire® C(18) column (150 mm × 4.6mm, 5 µm), and the column temperature was maintained at 25°C and the sample injection volume was 20 µL. The current LC-MS/MS assay was validated for linearity, intra-day and inter-day precisions, accuracy, extraction recovery and stability. RESULTS: The validated method was successfully applied to monitoring the concentrations and pharmacokinetic studies of five flavone compounds in rat plasma after a single oral administration of Verbena officinalis L. extract with a dosage of 8.0 mL/kg. The time to reach the maximum plasma concentration (T(max1)) was 0.48 ± 2.14 h for luteolin, 0.25 ± 0.13 h for kaempferol, 0.97 ± 1.08 h for apigenin, 1.04 ± 4.25 h for quercetol and 0.25 ± 0.16 h for isorhamnetin, and the maximum plasma concentration (T(max2)) was 3.97 ± 1.48 h, 4.05 ± 0.46 h, 4.33 ± 0.58 h, 2.99 ± 0.48 h and 4.02 ± 0.34 h. The elimination half-time (t(1/2)) of luteolin, kaempferol, apigenin, quercetol and isorhamnetin was 4.02 ± 0.81, 7.65 ± 0.71, 3.30 ± 0.83, 4.55 ± 0.49 and 5.56 ± 1.32 h, respectively. CONCLUSIONS: This paper described a simple, sensitive and validated LC-MS/MS method for simultaneous determination of luteolin, kaempferol, apigenin, quercetol and isorhamnetin in rat plasma after oral administration of V. officinalis L. extract, and investigated on their pharmacokinetic studies as well, with a short run time of 5 min.
2731. Acupuncture in primary headache treatment
By Schiapparelli Paola; Allais Gianni; Rolando Sara; Airola Gisella; Borgogno Paola; Terzi Maria Grazia; Benedetto Chiara

Acupuncture has a long tradition of use for the treatment of many pain conditions, including headache. Its effectiveness has been studied mainly for primary headaches, particularly for migraine and tension-type headache (TTH). Traditional Chinese Medicine (TCM) has two diagnostic frameworks for headaches: meridian diagnoses, based on the location of the pain and on the meridians (or channels) that pass through it; syndrome diagnoses, dependent on external or internal factors and on the characteristics of the pain. The four meridians involved in headache are Shaoyang (TE-GB channels, on the temporal sides of the head); Taiyang (SI-BL channels, occiput); Yangming (LI-ST channels, forehead) and Jueyin (PC-LR channels, vertex). The syndromes may be due to excess or deficit. Very generally, the excess syndromes correspond in the majority of cases to migraine and the deficit syndromes to TTH. Acupuncture is a complex intervention, which is also characterized by a close interaction between patient and therapist. The complicated system of TCM classification of headaches has frequently generated great diversity among the various therapeutic approaches used in the different studies on acupuncture in headache treatment. Despite these differences, the recent Cochrane systematic reviews on acupuncture in migraine and in TTH suggest that acupuncture is an effective and valuable option for patients suffering from migraine or frequent TTH. Moreover, acupuncture seems to be a cost-effective treatment.

2732. Strategies for quality control of Chinese medicines
By Li S P; Zhao J; Yang B
From Journal of pharmaceutical and biomedical analysis (2011), 55(4), 802-9, Language: English, Database: MEDLINE

Chinese medicines (CM) have been attracting interest and acceptance in many countries. Quality control is vital for ensuring the safety and efficacy of CM. Usually, CM are used as whole plant and/or combination of several herbs, and multiple constituents are responsible for the therapeutic effects. Therefore, quality control of CM is very difficult. To date, the valid method for quantitatively evaluating the quality of CM is poor. In this article, the strategies for quantification, related to the markers, reference compounds and approaches, in quality control of CM were reviewed and discussed.

2733. Contemporary treatment of Western and Chinese medicine for cardiac syndrome X
By Bi Ying-Fei; Mao Jing-Yuan; Wang Xian-Liang; Wang Heng-He; Ge Yong-Bin; Zhang Zhen-Peng
From Chinese journal of integrative medicine (2011), 17(4), 314-20, Language: English, Database: MEDLINE

Clinical reports on cardiac syndrome X (CSX) have been increasing in recent years. In general, CSX does not increase the cardiovascular mortality, but it can affect the patient's quality of life (QOL) and increase the incidence rates of cardiovascular and cerebrovascular events. Although a variety of drugs and therapies have been utilized in the clinical treatment, the management of CSX still represents a major challenge due to its unclear pathogenesis. It is necessary to explore more effective treatment programs. Many attempts have been made on trials of the Chinese medicine (CM) treatment for CSX and proved that CM has a certain advantage in efficacy to improve clinical symptoms and QOL. CM may provide a new approach for the effective treatment of CSX.
2734. Traditional therapies in the management of periodontal disease in India and China
By Surathu Nitish; Kurumathur Arun V

~0 Citings

2735. A systematic review of randomized controlled trials for pemphigus vulgaris and pemphigus foliaceus
By Martin Linda K; Werth Victoria P; Villaneuva Elmer V; Murrell Dedee F

BACKGROUND: A range of interventions has been described for the treatment of pemphigus; however, the optimal therapeutic strategy has not been established. OBJECTIVE: We sought to evaluate the safety and efficacy of interventions for pemphigus vulgaris and pemphigus foliaceus. METHODS: We undertook a systematic review and meta-analysis according to the methodology of the Cochrane Collaboration. We selected randomized controlled trials including participants with the diagnosis of pemphigus vulgaris or pemphigus foliaceus confirmed with clinical, histopathological, and immunofluorescence criteria. All interventions were considered. Primary outcomes studied were remission and mortality. Secondary outcomes included disease control, relapse, pemphigus severity score, time to disease control, cumulative glucocorticoid dose, serum antibody titers, adverse events, and quality of life. RESULTS: Eleven studies with a total of 404 participants were identified. Interventions assessed included prednisolone dose regimen, pulsed dexamethasone, azathioprine, cyclophosphamide, cyclosporine, dapsone, mycophenolate, plasma exchange, topical epidermal growth factor, and traditional Chinese medicine. We found some interventions to be superior for certain outcomes, although we were unable to conclude which treatments are superior overall. LIMITATIONS: Many interventions for pemphigus have not been evaluated in controlled trials. All studies were insufficiently powered to establish definitive results. CONCLUSIONS: There is inadequate evidence available at present to ascertain the optimal therapy for pemphigus vulgaris and pemphigus foliaceus. Further randomized controlled trials are required.

~0 Citings

2736. Kudzu root: traditional uses and potential medicinal benefits in diabetes and cardiovascular diseases
By Wong Ka H; Li George Q; Li Kong M; Razmovski-Naumovski Valentina; Chan Kelvin

Kudzu root (Gegen in Chinese) is the dried root of Pueraria lobata (Willd.) Ohwi, a semi-woody, perennial and leguminous vine native to South East Asia. It is often used interchangeably in traditional Chinese medicine with thomson kudzu root (Fengen in Chinese), the dried root of P. thomsonii, although the Chinese Pharmacopoeia has separated them into two monographs since the 2005 edition. For more than 2000 years, kudzu root has been used as a herbal medicine for the treatment of fever, acute dysentery, diarrhoea, diabetes and cardiovascular diseases. Both English and Chinese literatures on the traditional applications, phytochemistry, pharmacological activities, toxicology, quality control and potential interactions with conventional drugs of both species have been included in the present review. Over seventy phytochemicals have been identified in kudzu root, with isoflavonoids and triterpenoids as the major constituents. Isoflavonoids, in particular puerarin, have been used in most of the pharmacological studies. Animal and cellular studies have provided support for the traditional uses of kudzu root on cardiovascular, cerebrovascular and endocrine systems, including diabetes and its complications. Further studies to define the active phytochemical compositions, quality standards and clinical efficacy are warranted. Strong interdisciplinary collaboration to bridge the gap between traditional medicine and modern biomedical medicine is therefore needed for the development of kudzu root as an effective medicine for the management of diabetes and cardiovascular diseases.

~0 Citings

2737. Macroscopic identification of Chinese medicinal materials: traditional experiences and modern understanding
By Zhao Zhongzhen; Liang Zhitao; Ping Guo

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Authentication is fundamental for the standardization of Chinese Materia Medica. Macroscopic identification, an important method of authentication, has a long history rooted in practice and experience over generations. In ancient times, macroscopic features were used not only to identify the genuineness, but also to evaluate the quality of Chinese medicinal materials (CMMs). In many ancient documents, picturesque terms were used to describe the quality of certain specific CMMs. These traditional macroscopic descriptions used for identification are filled with characteristics, quality descriptions, and specifications of CMM that need to be confirmed by modern scientific analysis. In this paper, the essential and fundamental components of macroscopic identification are introduced. As the quality and macroscopic characteristics of CMM are traditionally thought to be closely related, modern scientific approaches to confirm the validity of these associations are discussed. This review clarifies the role of macroscopic features in the quality assessment of CMM.

~0 Citings

2738. The genus Epimedium: an ethnopharmacological and phytochemical review

By Ma Huiping; He Xirui; Yang Yan; Li Maoxing; Hao Dingjun; Jia Zhengping

Epimedium (Berberidaceae), is a genus of about 52 species in the family Berberidaceae, which also known as Rowdy Lamb Herb, Xianlinpi, Barrenwort, Bishop's Hat, Fairy Wings, Horny Goat Weed, and Yangheye or Yin Yang Huo (Chinese: ). Many plants have been proven to possess efficacy on sexual dysfunction and osteoporosis in traditional Chinese medicine (TCM). The paper reviews the ethnopharmacology, the biological activities and the correlated chemical compounds of Epimedium species. More than 260 compounds have been isolated; among them prenyl-flavonoids are the major constituents and also important chemotaxonomic markers. Modern pharmacology studies and clinical practice demonstrated that Epimedium and its active compounds possess wide pharmacological actions, especially in strengthening yang, hormone regulation, anti-osteoporosis, immunological function modulation, anti-oxidation and anti-tumor, anti-aging, anti-atherosclerosis and anti-depressant activities. Currently, effective monomeric compounds or active parts have been screened for pharmacological activity from Epimedium in vivo and in vitro.

~0 Citings

2739. Review of study on peripheral nerve regeneration promoted by traditional Chinese medicines

By Zhou Lan; Mei Xiaoyun

Peripheral nerve impairment is a common complication in surgery, clinical researchers always do nerve sutrure using microsurgical technique and adjuvant treatment to improve peripheral nerve regeneration. Western medicine used usually adjuvant drugs, such as neurotrophic factors, are limited by their defects in clinical application. Traditional Chinese medicines (TCMs) classifies peripheral nerve impair as flaccidity Zheng and arthromyodynia, and considers that it is the result of stagnant blood block in the meridians and vessels, deficient of Qi and blood and disuse of bones and muscles. So, drugs usually have the function of invigorating vital energy, activating blood circulation and dredging collaterals. Mono-drugs include astragalus, Salvia miltiorrhiza, Astragali Radix, Epimedii Folium and so on. Extracts of TCMs have Ginkgo Folium, Cervi Cornu Pantotrichum, Achyranthis Bidentatae Radix, and so on. To be ready for further study and development, TCMs which can promote the peripheral nerve regeneration were reviewed by the literatures of the latest years.

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2740. Food allergy therapy: is a cure within reach?

By Nowak-Wegrzyn Anna; Muraro Antonella
From Pediatric clinics of North America (2011), 58(2), 511-30, xii, Language: English, Database: MEDLINE
There is an unmet medical need for an effective food allergy therapy; thus, development of therapeutic interventions for food allergy is a top research priority. The food allergen-nonspecific therapies for food-induced anaphylaxis include monoclonal anti-IgE antibodies and Chinese herbs. The food allergen-specific therapies include oral, sublingual, and epicutaneous immunotherapy with native food allergens and mutated recombinant proteins. Diet containing heated milk and egg may represent an alternative approach to oral immunomodulation. Oral food immunotherapy remains an investigational treatment to be further studied before advancing into clinical practice.

2741. Effect of traditional Chinese medicinal herbs on Candida spp. from patients with HIV/AIDS

By Liu X; Han Y; Peng K; Liu Y; Li J; Liu H
From Advances in dental research (2011), 23(1), 56-60, Language: English, Database: MEDLINE

As an opportunistic infection, candidiasis is common among individuals infected with HIV. About 90% of patients develop oral and/or oropharyngeal candidiasis in various stages of AIDS. Triazole antifungal agents, such as fluconazole and itraconazole, are considered to be first-choice agents for treatment and prevention because of their relatively low side effects and high effectiveness on mucosal infections. However, with prolonged exposure to azoles, drug resistance becomes a challenge for clinicians and patients alike. In traditional Chinese medicine, more than 300 herbs have been discovered to have "pesticidal" activities, and some of these have been used as antifungal agents in clinical practice for many years. Crude extracts from a number of medicinal herbs have been shown to exhibit antifungal activities in vitro. These include cortex moutan, cortex pseudolaricis, rhizoma alpiniae officinarum, rhizoma coptidis, clove and cinnamon, anemarrhena cortex phellodendri, ramulus cinnamomi, and Chinese gall. The effective anti-Candida principals were identified to be berberine, palmatine, allincin, pseudolaric acid A and B, magnolol, honokiol, and galangin. Thus, traditional Chinese medicinal herbs provide abundant choices for the treatment of refractory candidiasis commonly seen in HIV/AIDS patients. However, there remains a need for further screening of effective extracts and for study of the antifungal mechanisms involved. Importantly, ahead of clinical application, the safety of these compounds must be firmly established.

2742. Traditional Chinese medicine for cancer pain

By Wang Ju-yong; Xu Ling; Zhang Rui-xin; Lao Lixing

Pain is one of the common symptoms of cancer which seriously affects the quality of life of the patients. Cancer pain is mainly treated with the three-step method, biological therapy or nerve block therapy based on antitumor therapy. However, up to 50 percent of patients with cancer-related pain do not receive adequate pain relief, affecting their physical and psychological well-being, and leading to a lower quality of life for the patient after conventional treatment. Clinical observation suggests that traditional Chinese medicine may alleviate cancer-related pain either by oral administration, topical administration, acupuncture or other means with continuing non-addictive and non-drug-resistant qualities. However, scientific evaluation of the efficacy of herbs in the treatment of pain is insufficient; the underlying mechanisms are unclear and, safety and toxicity remain a concern.

2743. Acanthopanax senticosus: review of botany, chemistry and pharmacology

By Huang Linzhang; Zhao Hongfang; Huang Baokang; Zheng Chengjian; Peng Wei; Qin Luping
Acanthopanax senticosus (Rupr. et Maxim) Harms (Araliaceae), also called Siberian Ginseng, Eleutherococcus senticosus, and Ciwujia in Chinese, is a widely used traditional Chinese herb that could invigorate qi, strengthen the spleen, and nourish kidney in the theory of Traditional Chinese Medicine. With high medicinal value, Acanthopanax senticosus (AS, thereafter) is popularly used as an "adaptogen" like Panax ginseng. In recent decades, a great number of chemical, pharmacological, and clinical studies on AS have been carried out worldwide. Several kinds of chemical compounds have been reported, including triterpenoid saponins, lignans, coumarins, and flavones, among which, phenolic compounds such as syringin and eleutheroside E, were considered to be the most active components. Considerable pharmacological experiments both in vitro and in vivo have persuasively demonstrated that AS possessed anti-stress, antiulcer, anti-irradiation, anticancer, anti-inflammatory and hepatoprotective activities, etc. The present review is an up-to-date and comprehensive analysis of the botany, chemistry, pharmacology, toxicity and clinical trials of AS.

2744. Chemopreventive properties and molecular mechanisms of the bioactive compounds in Hibiscus sabdariffa Linne

By Lin Hui-Hsuan; Chen Jing-Hsien; Wang Chau-Jong

From Current medicinal chemistry (2011), 18(8), 1245-54, Language: English, Database: MEDLINE

Hibiscus sabdariffa Linne is a traditional Chinese rose tea and has been effectively used in folk medicines for treatment of hypertension, inflammatory conditions. H. sabdariffa aqueous extracts (HSE) were prepared from the dried flowers of H. sabdariffa L., which are rich in phenolic acids, flavonoids and anthocyanins. In this review, we discuss the chemopreventive properties and possible mechanisms of various H. sabdariffa extracts. It has been demonstrated that HSE, H. sabdariffa polyphenol-rich extracts (HPE), H. sabdariffa anthocyanins (HAs), and H. sabdariffa protocatechuic acid (PCA) exert many biologic effects. PCA and HAs protected against oxidative damage induced by tert-butyl hydroperoxide (t-BHP) in rat primary hepatocytes. In rabbit and cholesterol and human experimental studies, these studies imply HSE could be pursued as atherosclerosis chemopreventive agents as they inhibit LDL oxidation, foam cell formation, as well as smooth muscle cell migration and proliferation. The extracts also offer hepatoprotection by influencing the levels of lipid peroxidation products and liver marker enzymes in experimental hyperammonemia. PCA has also been shown to inhibit the carcinogenic action of various chemicals in different tissues of the rat. HAs and HPE were demonstrated to cause cancer cell apoptosis, especially in leukemia and gastric cancer. More recent studies investigated the protective effect of HSE and HPE in streptozotocin induced diabetic nephropathy. From all these studies, it is clear that various H. sabdariffa extracts exhibit activities against atherosclerosis, liver disease, cancer, diabetes and other metabolic syndromes. These results indicate that naturally occurring agents such as the bioactive compounds in H. sabdariffa could be developed as potent chemopreventive agents and natural healthy foods.

2745. Botanical drugs and stem cells

By Lin Po-Cheng; Chang Li-Fu; Liu Po-Yen; Lin Shinn-Zong; Wu Wan-Chen; Chen Wuen-Shyong; Tsai Chang-Hai; Chiou Tzyy-Wen; Harn Horng-Jyh


The potential to generate virtually any differentiated cell type from stem cells offers the possibility of creating new sources of cells for regenerative medicine. To realize this potential, it will be essential to control stem cell differentiation. Chinese herbal medicine is a major aspect of traditional Chinese medicine and is a rich source of unique chemicals. As such, individual herbs or extracts may play a role in the proliferation and differentiation of stem cells. In this review, we discuss some of the Chinese herbal medicines that are used to treat human diseases such as neuronal degenerative diseases, cardiovascular diseases, and osteoporosis. We also describe the relationship between Chinese herbal medicines and stem cell regulation.

2746. Literature research of Chinese medicine recipes for the treatment of psoriasis vulgaris with blood-heat syndrome type

By Tan Ya-Qi; Liu Jiu-Li; Bai Yan-Ping; Zhang Li-Xin

From Chinese journal of integrative medicine (2011), 17(2), 150-3, Language: English, Database: MEDLINE
OBJECTIVE: To analyze and investigate the rules for drug utilization of Chinese medicine for the treatment of psoriasis vulgaris with blood-heat syndrome. METHODS: The literatures that met the following inclusion criteria were screened out from China National Knowledge Infrastructure (CNKI) from January 1998 to December 2008, including the compositions and dosages of the recipes reported completely and accurately, the sample size being [Symbol: see text] 30 cases and the total effective rate being [Symbol: see text] 70%. RESULTS: In total, 289 papers meeting the inclusion criteria were retrieved, involving 301 recipes; in which 111 recipes consisting of 145 individual drugs were the function for clearing the heat, accounting for 52.84%. The three drugs with the highest utilized frequency were Radix Rehmanniae, Radix Arnebiae seu Lithospermi and Cortex Moutan. Meridian adscription of the drugs was mainly the Gan-meridian. CONCLUSION: There were rules for the treatment of psoriasis vulgaris of blood-heat syndrome with Chinese medicine prescriptions.

2747. Progress in research on correlation between dampness disease and aquaporin

By Li Zi-hui; Wang Jian; Cai Rong-lin

Pathogenic dampness can cause many diseases, and that is why traditional Chinese medicine pays close attention to pathogenic dampness. In recent years many researches discovered that dampness diseases and aquaporin have close correlation. By analyzing the progress in research on correlation between dampness diseases and aquaporin, it is discovered that aquaporin has close correlation with urinary system, digestive system, respiratory system and central nervous system. Normal expression of aquaporin may be the molecular biological basis of dispelling dampness, while abnormal expression may be one of the main causes for dampness diseases. Studying the correlation between dampness diseases and aquaporin has quite important significance in understanding mechanism of dampness diseases and formulating treatment protocols.

2748. Introduction of "clinical pharmacognosy"--integration between pharmacognosy and clinical pharmacy

By Makino Toshiaki

In Japanese hospitals or pharmacies, crude drugs and natural products are used as the components of kampo medicine and dietary supplements. Clinical pharmacy can provide information such as the efficacy, adverse action, or interactions of crude drugs or natural products as well as chemical drugs. However, it is very difficult for a clinical pharmacist without a knowledge of pharmacognosy to offer full information, because crude drugs and natural products have very different pharmaceutical characteristics from chemical drugs containing a single compound. Drug information provided by such a pharmacist is sometimes ridiculous and may be misleading by suggesting the uselessness of crude drugs. Therefore, in order to use crude drugs and kampo medicine effectively and safely, it is necessary to integrate the clinical pharmacy and pharmacognosy as "clinical pharmacognosy". Clinical pharmacognosy would also be capable of handling kampo medicine, a Japanese traditional medicine. Since basic pharmacognosy is a modern pharmaceutical science, pharmacognosists are limited in their understanding of a kampo formula and its clinical usefulness solely with a knowledge of that field. I suggest here that clinical pharmacognosy would better adopt the knowledge of traditional Chinese medicine that includes a theory of traditional pharmacology of the crude drugs used in kampo medicine.

2749. "Total amount" release kinetics evaluation of traditional Chinese medicine sustained-release preparations based on material rough set theory

By Yue Peng-Fei; Zheng Qin; Zhu Gen-Hua; Wu Zhen-Feng; Hu Peng-Yi; Yang Ming
From Yao xue xue bao = Acta pharmaceutica Sinica (2010), 45(11), 1354-60, Language: Chinese, Database: MEDLINE
The release kinetics research of sustained-release formulations of traditional Chinese medicines (TCM) is an inalienable part of the chain of TCM modernization, which plays an important role in the development of modern compound TCM preparation. However, the research method or pattern in line with the specific characteristics of TCM, i.e., multi-component and multi-target, is still lacking. On the basis of material rough set theory, this paper reviewed the advantages and disadvantages of the existing evaluation patterns and methods, a tentative idea about the "total amount" release characteristics evaluation on TCM compound sustained-release preparation has suggested so as to evaluate the release kinetics and to promote the development of evaluation methodology on TCM sustained-release preparations.

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2750. Research progress on the mechanism of single-Chinese medicinal herbs in treating diabetes mellitus
By Yang Li-Xia; Liu Tong-Hua; Huang Zong-Tao; Li Juan-E; Wu Li-Li

Treating diabetes mellitus (DM) with Chinese medicine (CM) has had a few thousands years of history. Past Chinese medical texts had already recorded numerous medicinal herbs as well as recipes for treating DM and accumulated much clinical experience. In the following article, the prevention of DM using CM in the past 5 years is retrospectively studied, and mainly focuses on the usage of simple Chinese herbal extracts or monomers in terms of cellular as well as molecular biology.

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2751. The mechanistic studies of acupuncture and moxibustion in Taiwan
By Lin Jaung-Geng; Chen Yi-Hung
From Chinese journal of integrative medicine (2011), 17(3), 177-86, Language: English, Database: MEDLINE

Traditional Chinese acupuncture has a history of over 2500 years. It is effective in the treatment of many conditions with few side effects. The best known mechanism is via endogenous opiates and their receptors. In addition to opioids, researchers have focused on the role of central monoamimergic systems. Acupuncture therapy is used not only to relieve pain but also to treat various medical conditions in traditional Chinese medicine (TCM). Some experiments have revealed a relationship between acupuncture and the autonomic nervous system (ANS). Besides, electroacupuncture (EA) can modulate the imbalance between innate and acquired immune systems. This review is focusing on the mechanistic studies of acupuncture that my colleagues and I have performed in Taiwan in recent years. We found that EA analgesia was closely related to not only the serotonergic neurons but also the adrenergic neurons in the central nervous system. The electrophysiological recordings suggested the involvement of the cerebral cortex in acupuncture. Local somatothermal stimulation inhibited the motility of sphincter of Oddi and internal anal sphincter through nitrergic neural release of nitric oxide. Mild local heat stress upregulated hepatic gene expression of heat shock protein 70 and protected the liver from subsequent ischemia-reperfusion injury. These studies supplement the knowledge of the mechanism of acupuncture.

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2752. Progress in metabolism studies of bioactive components from Chinese medicinal natural products
By Li Yi; Jiang Jiandong

Major pathways of drug metabolism have been introduced in the article. Studies on the metabolism of bioactive components from Chinese medicinal natural products have been summarized. Finally, personal hope for domestic scientists has been put forward.

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2753. Quality evaluation system for the oral sustained- and controlled-release drug delivery systems of traditional Chinese medicine

By Wei Yuan-feng; Lin Xiao; Zhang Ning; Feng Yi

Oral sustained- and controlled-release drug delivery systems of traditional Chinese medicine (TCM) are a research hotspot in the development of drug-delivery systems for TCM. The quality evaluation system is an important guarantee for the safety and efficiency of these drug-delivery systems. In this paper the methods to construct such quality evaluation system were discussed.

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2754. Network pharmacology: new guidelines for drug discovery

By Liu Ai-lin; Du Guan-hua
From Yao xue xue bao = Acta pharmaceutica Sinica (2010), 45(12), 1472-7, Language: Chinese, Database: MEDLINE

The development of new drug is not only the main driving force for the development of pharmaceutical industry, but also plays a very important role in the social development. However, with the increasing demands, new drug development is facing great difficulties in recent years. The hypothesis of highly selective single-target is meeting the challenges because of its limitations. Network pharmacology has been one of the new strategies for new drug discovery based on single-target drug research in recent years. This paper focused on the basis of network pharmacology and its research progress, discussed its development direction and application prospects, and analyzed its limitations and problems as well. The application of network pharmacology in new drug development is discussed by comparing its guidelines with those of traditional Chinese medicine theory and Effective Components Group hypothesis of Chinese medicines.

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2755. Advances in the study of anti-HIV natural compounds derived from traditional Chinese medicines

By Zhang Xuan; Huang Ning; Zheng Yong-tang

Anti-HIV drugs still remain as the dominant role in the treatment of acquired immunodeficiency syndrome (AIDS), because no vaccine was found till today. Owing to structural diversity, few side effects, and abundant resources, natural compounds from traditional Chinese medicines and medicinal plants have unique advantages and good potential in prevention and treatment of AIDS. Many researchers have made great efforts in the field of anti-HIV natural compounds, and have found some natural compounds from traditional Chinese medicines with potent anti-HIV activities. These compounds can be classified into the following categories: alkaloids, coumarins, lignans, flavonoids, terpenoids, tannins, polysaccharides, proteins and peptides, and polyphenols. However, most of these researches are performed in vitro, and most natural compounds show weak anti-HIV activities and indefinite acting targets. In the paper, we reviewed some natural compounds derived from traditional Chinese medicines with potent anti-HIV activities in recent years.

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2756. Antitumor activity of extracts and compounds from the skin of the toad Bufo bufo gargarizans Cantor

By Qi Fanghua; Li Anyuan; Inagaki Yoshinori; Kokudo Norihiro; Tamura Sumihito; Nakata Munehiro; Tang Wei
The skin of the toad Bufo bufo gargarizans Cantor is known to be rich in bufadienolides, peptides and alkaloids. It has been found to be a source of some extracts and biologically active compounds with antitumor activity. Cinobufacini (Huachansu), a Chinese medicine prepared from the dried toad skin, has been widely used in clinical therapy for various cancers in China. Bufadienolides, such as bufalin, cinobufagin, resibufogenin, and telocinobufagin, are the major active compounds derived from the toad skin. They are the maker biologically active compounds of cinobufagin while the antitumor activity of cinobufagin may be due to this kind of components. Experimental research has suggested that cinobufacini and its active compounds (e.g. bufalin and cinobufagin) exhibit significant antitumor activity, including inhibition of cell proliferation, induction of cell differentiation, induction of apoptosis, disruption of the cell cycle, inhibition of cancer angiogenesis, reversal of multi-drug resistance, and regulation of the immune response. Clinical data have indicated that cinobufacini may have effective anticancer activity with low toxicity and few side effects. Data to date suggest it may also enhance quality of life for patients with cancer. Thus, this review briefly summarizes recent studies on the anticancer activity of cinobufacini and some of its active compounds from the skin of the toad Bufo bufo gargarizans Cantor. This might provide additional evidence for further study of the extracts and active compounds from the toad skin in cancer treatment.

2757. Molecular targets of celastrol derived from Thunder of God Vine: potential role in the treatment of inflammatory disorders and cancer

By Kannaiyan Radhamani; Shanmugam Muthu K; Sethi Gautam
From Cancer letters (2011), 303(1), 9-20, Language: English, Database: MEDLINE

Identification of active constituents and their molecular targets from traditional medicine is an enormous opportunity for modern pharmacology. Celastrol is one such compound that was originally identified from traditional Chinese medicine (Thunder of God Vine) almost three decades ago and generally used for the treatment of inflammatory and autoimmune diseases. Celastrol has attracted great interest recently, especially for its potential anti-inflammatory and anticancer activities. The anti-inflammatory effects of this triterpene have been demonstrated in animal models of different inflammatory diseases, including arthritis, Alzheimer's disease, asthma, and systemic lupus erythematosus. This triterpene has also been found to inhibit the proliferation of a variety of tumor cells and suppress tumor initiation, promotion and metastasis in various cancer models in vivo. Celastrol's ability to modulate the expression of pro-inflammatory cytokines, MHC II, HO-1, iNOS, NF-κB, Notch-1, AKT/mTOR, CXCR4, TRAIL receptors DR4 and DR5, CHOP, JNK, VEGF, adhesion molecules, proteasome activity, topoisomerase II, potassium channels, and heat shock response has been reported. This review describes the various molecular targets of celastrol, cellular responses to celastrol, and animal studies with celastrol in cancer and other inflammatory disorders.

2758. Assessment of the safety of Qin Kai Ling injection: a systematic review

By Hao Yuan; Kong Xiangyu; Wu Taixiang
From Journal of evidence-based medicine (2010), 3(2), 105-16, Language: English, Database: MEDLINE

OBJECTIVE: Qin Kai Ling (QKL) injection, which is based upon the traditional Chinese medicine formulation 'An Gong Niu Huang Wan', is widely used in treatment of many diseases. This review aims to assess the safety of QKL. METHODS: We searched Chinese databases CNKI and VIP for articles published between January 1987 and April 2009. RESULTS: A total of 1486 cases were included in this review. We were unable to determine the frequency of ADR/AE induced by QKL due to the lack of complete production and market information. We estimate, based on the limited data, that the risk of ADR/AE from QKL use should be low. We found some ADR/AE may have been induced by incorrect use of QKL, such as use in infants, or use with incompatible drugs, and some places may not suite for use of QKL, for example, four of seven patients died in private clinics or patient's home. We unable to distinguish whether incidents were ADRs or AEs because the poor reports. CONCLUSION: Current evidence, while weak, indicates that QKL carries a low risk of ADR/AE, and some adverse events that do occur may be ascribed to improper use of the drug. Reporting of ADR/AEs needs to be greatly improved, and should follow the “Recommendations for reporting traditional Chinese medicine adverse drug reaction”.


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OBJECTIVES: We conducted a literature review on adverse drug reactions (ADRs) related to 33 kinds of traditional Chinese medicine injections (CMIs) on China's National Essential medicines List (2004 edition). We aimed to retrieve basic ADR information, identify trends related to CMIs, and provide evidence for the research, development, and application of CMIs. METHODS: We electronically searched the Chinese Biomedical Literature Database (CBM, January 1978-April 2009), the China National Knowledge Infrastructure Database (CNKI, January 1979-April 2009), the Chinese Science and Technology Periodical Database (January 1989-April 2009) and the Traditional Chinese Medicine Database (January 1984-April 2009). We used the terms of 'adverse drug reaction', 'adverse event', 'side effects', 'side reaction', 'toxicity', and 'Chinese medicine injections', as well as the names of the 33 CMIs to search. We also collected CMI-related ADR reports and regulations from the Chinese Food and Drug Administration's 'Newsletter of Adverse Drug Reactions' (Issue 1 to 22). Then we descriptively analyzed all the articles by year published, periodical, and study design. We also analyzed regulations relevant to ADRs. RESULTS: (1) We found 5405 relevant citations, of which 1010 studies met the eligibility criteria. (2) The rate of publishing of research articles on CMI-linked ADRs has risen over time. (3) The included 1010 articles were scattered among 297 periodicals. Of these, 55 journals on pharmaceutical medicine accounted for 39.5% of the total (399/1010); the 64 journals on traditional Chinese medicine, accounted for only 19.5% (197/1010). Only 22 periodicals with relevant articles were included on the core journals of the Beijing University List (2008 edition); these published 129 articles (12.8% of the included articles). (4) The relevant articles consisted of 348 case reports (34.5%), 254 case series (25.2%), 119 reviews (11.8%), 116 randomized controlled trials (11.5%), 78 cross-sectional studies (7.7%), 61 literature analyses of ADR (6.0%), and 28 non-randomized controlled clinical studies (2.8%). (5) Three journals, Adverse Drug Reactions Journal, China Medical Herald, and Chinese Pharmaceuticals, together published 12.3% of the included literature. (6) The most commonly-reported CMI-related ADRs were to Shuanghuanglian, Qingkailing, and Yuxingcao injections, each of which had ADRs mentioned in more than 200 articles. Four of the five CMIs with the most ADR reports (Shuanghuanglian, Ciwujia, Yuxingcao, and Yinzhihuang injections) had been suspended use or sale in the market. CONCLUSIONS: (1) Articles published on CMI-related ADRs increased over time, but overall the research is of low quality and is scattered through a large number of sources. (2) Four CMIs (Shuanghuanglian, Ciwujia, Yuxingcao, and Yinzhihuang injections) had been suspended for clinical use or sale. (3) There is an urgent need for a clear standard to grade ADRs of CMIs in order to better risk manage. (4) It is necessary to continually re-evaluate the safety of CMIs and to promote rational use of CMIs.

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2760. Review of adverse reactions to injections of Chinese materia medica

By Bian Zhaoxiang; Shang Hongcai; Cheng Chungwah; Wu Taixiang; Li Youping; Zhang Boli

Using Chinese Materia Medica (CM) as injections is an innovation that is proving effective in extensive clinical use in Mainland China. However, recent reports have focused on adverse reactions, ignoring the considerable successes of these preparations. In order to achieve balance in the media and in the minds of the public, we suggest the first step is to clarify the concepts of and differences between adverse drug reactions (ADR) and adverse events (AE) for all concerned—the public, medical practitioners, government officials, and lawmakers. Second, the State Food and Drug Administration should raise the requirements for Chinese Materia Medica Injection (CMI) registration and license approval and emphasize the importance of evidence-based CMI development and evidence-based CMI license approval. Thirdly, drug companies and institutions should reinforce basic research about the quality control of herbs and CMI-drug interactions. Fourth, the Government should clarify the legal responsibilities for CMI approval agencies, CMI developers, medical doctors, and patients. Fifth, the medical association and Government should enhance training for health care professionals concerning the usage of CMIs. And finally sixth, State Food and Drug Administration should monitor the content and quality of the directions for use of CMI.

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2761. Avoiding adverse drug reactions to Chinese medicine injections

By Li Tingqian
From Journal of evidence-based medicine (2010), 3(1), 44-9, Language: English, Database: MEDLINE
A total of 109 varieties of Chinese medicine injections (CMI) have been approved by the State Food and Drug Administration of China, all of which have the potential to induce adverse drug reactions (ADRs). Major ADRs include systemic anaphylaxis, anaphylactic shock, acute intravascular hemolysis, hepatorenal damage, skin lesion, cardiac damage, respiratory system injury, and gastrointestinal disorders. Contributing factors of ADRs include healthcare workers' inadequate attention to ADRs of CMI, complex ingredients, allergic uncertainties, and inappropriate drug use in children and the aged. To decrease ADRs resulting from CMI, it is essential to improve the selection of drug indications, delivery of proper dosage regimens, compliance with drug instructions, and selection of solvents for the drugs.

2762. Adverse drug reactions linked to Ciwujia injection: a systematic review of 521 cases
By Hu Jing; Shang Hongcai; Li Jing; Zhang Li; Zhang Junhua; Zheng Wenke; Li Tingqian; Zhang Boli; Li Youping

OBJECTIVE: To analyze adverse drug reactions (ADRs) associated with Ciwujia injection and possible contributing factors. METHODS: We searched all clinical studies and ADR reports of Ciwujia injection from the China National Knowledge Infrastructure (CNKI) database. Relevant information such as disease treated; menstruum and compatibility of the Ciwujia injection; age, gender, and allergic history of ADR cases; and the types, occurrence time and severity of the ADRs were collected and analyzed. RESULTS: In the 800 clinical studies of Ciwujia injection's efficacy and safety, 97 (12.1%) reported 285 ADR cases. There were 144 ADR reports for the drug describing a total of 236 ADR cases. Most of the ADR reports described cases of anaphylactic shock, while the most common ADR reported in clinical studies was local pain; 27.7% of ADR cases were I to II class in all 521 cases, and four anaphylactic shock cases died. CONCLUSION: The relevant information of ADRs for Ciwujia injection was insufficiently reported in included studies. The ADR type distribution between clinical studies and ADR reports was inconsistency. Most of the reported ADRs were mild, and were treated successfully by slowing down the drip velocity or by withdrawing the drug and treating the symptoms. As Ciwujia injection was one of the highest numbers of ADR reports of traditional Chinese medicine injections, high quality ADR monitoring, standardized ADR reporting, and timely analysis risk factors of ADRs are extremely urgent.

2763. Systematic review on the compatibility of Shuanghuanglian injection combined with western medical injections
By Zhang Junhua; Shang Hongcai; Zheng Wenke; Hu Jing; Xu Hongjuan; Wang Hui; Zhang Li; Ren Ming; Zhang Boli

OBJECTIVES: Shuanghuanglian injection (SHLI) is a typical Chinese herbal injection which has been used for more than 20 years. This study aims to investigate the compatibility of SHLI with western intravenous agents. METHODS: An extensive literature search was executed to identify all experimental tests and clinical reports on the topics. Data on the types of infusion solutions and western medical injections, usage and dosage, outcome measures for physical and chemical properties, and changes of drug effect were searched for. The included data was analyzed and described by the category of included western drugs. Compatibility was tested through integrating the evaluations of physical properties, chemical composition, drug metabolism, and safety. RESULTS: Sixty articles (38 experimental tests and 22 clinical reports) were included after screening. Fifty-three western medical injections were identified from all the included articles. Most of the research was about the compatibility of SHLI with different types of antibiotics, including β-lactam, aminoglycoside, and quinolone etc. Thirty-one western medical injections were not recommended to be combined with SHLI. The quality of the experimental test design was low because of unbalanced evaluation indicators: more attention to physical changes than drug metabolism, effect, and safety. CONCLUSIONS: A broad incompatibility existed in the combination of SHLI with western medical injections. Some results were still uncertain, but the combinations should still be avoided until researched clearly. The compatibility and interaction of Chinese herbal injections and western medicines is still a weak area. The pharmaceutical sector should strengthen post-market research to update evidence and improve its distribution.

2764. Adverse drug reactions of Shuanghuanglian injection: a systematic review of public literatures
OBJECTIVES: To systematically evaluate the clinical characteristics of ADRs caused by Shuanghuanglian Injection (SHLI) and to provide reference for post-market evaluation and clinical application of SHLI. METHODS: We searched electronic databases such as the Chinese National Knowledge Infrastructure (CNKI, 1979-2009.9), the Chinese Science and Technology Journal Full-text Database (VIP, 1989-2009.9), and the Chinese Biomedical Disc (CBMdisc, 1978-2009.9). ADR cases were analyzed according to occurrences categorized. Available data was assessed using the Chi-square test including relative ratios (RR) with 95% confidence intervals (95%CI). Different medicine combinations and comparisons between SHL powder injection and SHL injection were calculated using the statistical software Stata 9.1. RESULTS: (1) A total of 452 articles were included with a total of 2,799 ADR cases reported. Case reports were the main design type of included literature, which account for 84.51%. According to 31,165 cases of SHLI treatment and 1,013 corresponding ADRs, the incidence of SHLI ADR was calculated as 3.25%. (2) The ratio of male to female in the reported ADR cases was 1.13:1. (3) Allergy to Penicillin, which account for 13.38% of the total cases, was at the top for past allergic history, followed by sulfonamides and asthma (2.68%). (4) In terms of disease treated respiratory disease accounted for 91.75% of all cases of SHLI ADRs, followed by digestive diseases (5.17%), and urinary diseases (1.11%). (5) Penicillins were the most common combination choice with SHLI, and such combination showed higher ADR risk than SHLI used alone (RR = 3.14, 95%CI 2.58 to 3.81). (6) Multiple systems/organs were involved in SHLI ADRs, and were ranked downwards according to proportion as: skin, digestive system, general reactions, respiratory system, nervous system, cardiovascular system, local reactions, urinary system, hematologic system and others. (7) According to the WHO ADR Classification Criteria, ADR cases were divided into four grades. There were 6.36%, 5.48%, 45.62%, and 2.12% cases of Grade I, II, III, and IV respectively. And the prognoses of the rest 52.42% cases were reported unclearly. (8) All cases of death were caused by allergic shock, except for one, which was caused by myocardial infarction induced by pain at the injection site. The fastest ADR case occurred 1 minute after being injected. (9) There was a remarkable difference (P < 0.05) in the rate of ADR caused by SHLI in power form (2.25%) and as a solution (4.14%). CONCLUSION: The clinical manifestations of ADRs caused by SHLI mainly include skin allergic reactions and gastrointestinal reactions. There is an increased risk of ADR induced by combined uses of SHLI and other drugs, especially antibiotics. Compared to the solution, the powder has lower ADR occurrence and higher safety with statistical significance. We propose strengthening management and surveillance on SHLI from manufacturing to application, and improving the level of the risk management for post-market drugs.
BACKGROUND: While reporting of adverse drug events (AE) and adverse drug reactions (ADR) following Chinese materia medica (CM) injection is becoming more common, the reporting quality is of concern. METHODS: A checklist about the reporting quality of AE/ADR was set up, and the ADR/AE reporting of Herba Houttuyniae injection was chosen as an example. Electronic databases Chinese Journal Net (1994-2009) and Chinese Science and Technological Journal Net (VIP) (1989-2009) were searched for target literature. RESULTS: Based on our search strategy, 210 articles were included, with 175 articles reporting single or several cases of ADR/AE following Herba Houttuyniae injection (type I report). There were seven reports from regional or national ADR monitoring centers (type II report), and 28 summary reports from a single hospital or medical center (type III report). All 210 papers mentioned "adverse effect," "safety" or related meaning words in their titles, but 199 articles did not have abstract. Patient demographic characteristics were not fully reported in these articles. In type I articles, only 97 cases (43.11%) mentioned whether patients had or did not have a history of allergies, whereas 128 cases (56.89%) in type II papers and 14 (50%) type III papers, did not mention allergic history of patients. Only three articles (3/210, 1.43%), all of them type I, mentioned the syndrome type in Chinese medicine. None of the papers gave clear indications of the type and grade of ADR/AE of patients. Most papers did not report details of the CM injection procedure, such as the drug company, product serial number, or the drug's validity period. Data about the occurrence time and management of ADR/AE was also inadequately reported. CONCLUSION AND RECOMMENDATIONS: The current reporting format of ADR/AE in clinical CM injections is not standardized. Much fundamental information of ADR/AE following CM injection is therefore missing. A standard reporting format for ADR should be developed, and should include the following: (1) a title mentioning adverse effects and safety; (2) a structured abstract including adequate information about the patient and the disease treated, the drug used, the specific ADR/AE, physician response to the ADR/AE, and result of management; (3) demographic characteristic of the patients (gender, age, etc.); (4) clinical characteristics of patients (disease, syndrome, etc.); (5) allergic history of patients; (6) diagnosis and syndrome based on Chinese medicine theory; (7) detailed information about the CM intervention (the manufacturer of the drug, series number, valid dates, dosage, route of administration, menstruum, dripping speed, etc.); (8) concomitant drug use; (9) time and symptoms of ADR/AE; (10) type and grading of ADR/AE; (11) physiological systems affected by ADR/AE; (12) specific treatment and prognosis for ADR/AE; (13) evidence of the cause and effect of ADR/AE; and (14) any other possibility of ADR/AE. Also, a ADR/AE registration system should be established.

2767. Three therapeutic tendencies for secondary prevention of myocardial infarction and possible role of Chinese traditional patent medicine: viewpoint of evidence-based medicine

By Shang Hongcai; Chen Jing; Zhang Junhua; Xiang Yaozu; Cao Hongbo; Ren Ming; Wang Hui; Xu Hongjuan; Li Jing; Liu Dan; et al

OBJECTIVE: The possibility of the preventive and therapeutic effects of Chinese traditional patent medicine for myocardial infarction has been reported in the literature, but there have been few studies. This paper presents three tendencies for the secondary prevention of myocardial infarction and presents a systematic evaluation of current research evidence related to the use of Chinese traditional patent medicine in secondary prevention of myocardial infarction, with a goal of making objective recommendations for patient rehabilitation. METHOD: Literature was retrieved from traditional Chinese medicine websites, MEDLINE, CNKI, VIP, CINAHL, The Cochrane Library, EMBASE, HealthSTAR, and Academic ASAP to locate research-based scientific evidence related to the use of Chinese traditional patent medicine for myocardial infarction. RESULTS: Some Chinese traditional patent medicine therapies alone or in combination with routine rehabilitation therapies might be useful in patients with myocardial infarction, but we found insufficient evidence to support the use of most Chinese traditional patent medicine therapies in the secondary prevention of myocardial infarction. CONCLUSION: Difficulty in accessing information regarding traditional Chinese medicine has implications for health education in both myocardial infarction and patient safety. Some Chinese traditional patent medicine therapies hold promise for patients in the secondary prevention of myocardial infarction but further research is essential in all areas of traditional Chinese medicine to confirm its efficacy.

2768. Autonomic activation in insomnia: the case for acupuncture

By Huang Wei; Kutner Nancy; Bliwise Donald L
Current conceptualizations of the biological basis for insomnia typically invoke central nervous system and/or autonomic nervous system arousal. Acupuncture may represent a unique avenue of treatment for poor sleep by virtue of its direct effects on peripheral nerves and muscles, which, in turn, modulate autonomic tone and central activation. In this review, we summarize both basic and clinical research indicating that acupuncture exerts profound influences via a wide variety of potential neural and/or hormonal mechanisms that have great relevance for the modulation of sleep and wakefulness. We illustrate principles of acupuncture intervention applied to cases of otherwise intractable insomnia that document successful application of this component of Traditional Chinese Medicine to the treatment of poor sleep. Our review indicates the necessity for further research in the relationship between the effects of acupuncture on insomnia and autonomic regulation, which might guide better selective use of this treatment modality for insomnia.

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2769. Diabetes is an inflammatory disease: evidence from traditional Chinese medicines
By Xie W; Du L
From Diabetes, obesity & metabolism (2011), 13(4), 289-301, Language: English, Database: MEDLINE

Diabetes is usually associated with inflammation. Inflammation contributes to the development of diabetes. Traditional Chinese medicines (TCM) play an important role in lowering blood glucose and controlling inflammation. Many studies show that TCM with hypoglycaemic effects, for example Radix Astragali, Radix Rehmanniae, Radix Trichosanthis, Panax Ginseng, Fructus Schisandrae, Radix Ophiopogonis, Rhizoma Anemarrhenae, Radix Puerariae, Fructus Lycii, Poria, Rhizoma Coptidis, Rhizoma Dioscoreae, Rhizoma Polygonati, Radix Salviae Miltiorrhizae, Radix Glycyrrhizae, Semen Trigonellae, Momordica charantia, Allium sativum, Opuntia stricta, Aloe vera, Cortex Cinnamomi, Rhizoma Curcumae Longae, and so on, have nearly independent anti-inflammatory action. Antihyperglycaemic compounds, for example berberine, puerarin, quercetin, ferulic acid, astragaloside IV, curcumin, epigallocatechin gallate, resveratrol, tetrandrine, glycyrrhizin, emodin and baicalin, used in TCM also have anti-inflammatory effects. These studies suggest that TCM might exert hypoglycaemic effects that are partly mediated by the anti-inflammatory mechanisms. However, small amounts of TCM with potent anti-inflammatory action does not have any hypoglycaemic effect. This indirectly indicates that diabetes may be a low-grade inflammatory disease and potent regulation of inflammatory mediators may not be required. Studies of TCM add new evidences, which indicate that diabetes may be an inflammatory disease and slight or moderate inhibition of inflammation might be useful to prevent the development of diabetes. Through this review, we aim to develop more perspectives to indicate that diabetes may be an inflammatory disease and diverse TCM may share a common antidiabetic property: anti-inflammatory action. Further studies should focus on and validate inflammation-regulating targets of TCM that may be involved in inhibiting the development of diabetes.

~1 Citing

2770. Adverse drug reactions or adverse events of Chaihu Injection: a systematic review
By Kong Xiang-yu; Hao Yuan; Wu Tai-xiang; Xie Yan-ming
From Zhong xi yi jie he xue bao = Journal of Chinese integrative medicine (2010), 8(12), 1124-32, Language: Chinese, Database: MEDLINE

~1 Citing
BACKGROUND: Chaihu Injection (CI), which is widely used in treatment of febrile diseases, is an aqueous solution of Chaihu (Radix Bupleuri Chinensis) or Nanchaihu (Radix Bupleuri Scorzonerifolii) prepared by steam distillation.

OBJECTIVE: This study aims at finding out the possible causes for adverse drug reaction or adverse event (ADR/AE) caused by CI and assessing its safety based on existing evidence.

SEARCH STRATEGY: Manual search was not conducted. Electronic search was conducted by two authors in China National Knowledge Internet (CNKI) database and Chongqing VIP database (VIP). The search ended in June 30th, 2009.

INCLUSION CRITERIA: Studies of ADR/AE induced by CI were collected comprehensively without considering language of literature and outcome indicators. Search results were not limited by patient's age, gender, race, primary disease, etc. Interventions were using CI alone or CI combined with other drugs (Chinese herbal medicine decoction or other drugs containing Chaihu were excluded).

DATA EXTRACTION AND ANALYSIS: Two authors conducted data extraction independently. Microsoft Excel software was used to develop data extraction forms. Because of heterogeneity of the studies, only a descriptive analysis was conducted.

RESULTS: Totally 83 studies with 203 cases were included in this review. Without the yield data and total amount of using, we cannot tell the incidence of ADR/AE induced by CI as well as assess the risk and safety of CI. The constituent ratio of severe cases was higher in children and old people than in other age groups. For most intramuscular cases, ADR/AE happened in 30 min after injection (constituent ratio of cumulative incidence in 30 min was 93.8%); for intravenously guttae patients, 4 cases of ADR/AE happened in the process of infusion; for first users, constituent ratio of cumulative incidence in 30 min and constituent ratio of cumulative incidence of severe cases in 30 min were higher than cases who had used CI before. Most ADRs/AEs were caused by incorrect use of CI, such as excessive doses (5 cases), intravenously guttae administration (6 cases), and violating incompatibility rules (7 cases). The incidence ratios of ADR and AE for severe and mild cases were 1.7:1 and 1.1:1, respectively; the ratios of the three relevant levels described as definitely related, most probably related and possibly related in the two types (severe and mild) of cases were 25:14:5 and 44:9:16, respectively.

CONCLUSION: Present evidence with low level shows that incorrect use is the main cause of ADR/AE of CI. Whether CI is proper for children and old people still needs further research. Training for correct use of CI is necessary for medical workers. Much improvement in reporting ADR/AE based on "Recommendations for Reporting Adverse Drug Reactions and Adverse Events of Traditional Chinese Medicine" is in need.

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2771. Relationships between insulin resistant and hypertension and traditional Chinese medicine intervention

By Chen Yi; Wang Wen-jian

From Zhong xi yi jie he xue bao = Journal of Chinese integrative medicine (2010), 8(12), 1114-8, Language: Chinese, Database: MEDLINE

Recently many researches have demonstrated that insulin resistant (IR), as an important pathologic process, is increasingly involved with a series of diseases such as central obesity and diabetes. Hypertension is highly associated with IR. The relationships between IR and glucose or lipid metabolism disorders are well established. However, association of IR with hypertension is less covered. Current researches on insulin resistance and pathogenesis of hypertension are reviewed in this paper, which holds that traditional Chinese medicine treatment on IR in patients with hypertension has a good prospect.

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2772. Shengmai (a traditional Chinese herbal medicine) for heart failure

By Zheng Huixian; Chen Yanling; Chen Jin; Kwong Joey; Xiong Wenmei

From Cochrane database of systematic reviews (Online) (2011), (2), CD005052, Language: English, Database: MEDLINE

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Page 94
BACKGROUND: Heart failure is a major public health problem worldwide. Shengmai (a traditional Chinese herbal medicine) has long been used as a complementary treatment for heart failure in China. OBJECTIVES: To determine the effects (both benefits and harms) of Shengmai plus usual treatment versus usual treatment alone for heart failure. SEARCH STRATEGY: We searched CENTRAL and DARE on The Cochrane Library (Issue 3, 2008), MEDLINE (1966 to August 2008), EMBASE (1984 to August 2008), AMED (1985 to August 2008) and BIOSIS (1997 to August 2008) and CBM (1978 to August 2008). We added two new Chinese databases for the update; VIP (1989 to September 2008) and CNKI (1979 to September 2008). We also handsearched Chinese journals. No language restrictions were applied. SELECTION CRITERIA: Randomized controlled trials (RCTs) of Shengmai plus usual treatment versus usual treatment alone or Shengmai versus placebo for heart failure, irrespective of blinding status, were included. More stringent inclusion criteria were applied in this update and only studies that have a clear description of randomisation methods are classed as true RCTs and hence included. DATA COLLECTION AND ANALYSIS: Two authors independently selected trials, assessed methodological quality and extracted data. Dichotomous and continuous data were calculated as relative risk (RR), and mean differences (MD) or standardized mean difference (SMD). Random-effect model and fixed-effect model were used to perform meta-analysis for with and without heterogeneity respectively. MAIN RESULTS: Only six RCTs with a total of 440 patients were included in this updated review. Compared to usual treatment alone, Shengmai plus usual treatment in five trials indicated an improvement in NYHA classification (RR 0.37; 95% CI 0.25 to 0.54). Other benefits were observed, but were limited to low patient numbers and significant heterogeneity: ejection fraction, cardiac output, stroke volume, exercise test and ratio of peak early to late diastolic filling velocity. Only one RCT with 40 patients compared Shengmai to placebo, and improvements were seen in stroke volume, Heath and Cardic index and myocardial contractility. Two studies reported mild adverse effects, but no patients were withdrawn or needed medication due to these adverse effects. AUTHORS' CONCLUSIONS: Shengmai may be beneficial for heart failure compared to placebo or plus usual treatment compared to usual treatment alone. However, long-term and more high quality studies are needed to provide clear evidence for the future use of Shengmai.

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2773. Research progress on drug metabolism of flavanoids

By He Jiake; Yu Yang; Chen Xijing; Sun Wei; Fang Fang; Li Ning; Zheng Jianheng

Flavanoids are important phytochemistry compositions in foods and traditional Chinese medicines (TCM) and are mainly oxidized by CYP1A family in vivo. Some methoxyflavones could also be metabolized through demethylation. Usually, flavanoids own one or more phenolic hydroxyl group in their molecular structures, which facilitate conjugation with glucuronic acid and sulphuric acid, forming metabolites with good water-solubility to excrete. Natural flavanoids mainly exist in glycoside, and after oral ,they would be easily metabolized to aglycone by hydratase in gut microflora and then absorbed into blood. Besides, many flavanoids have strong inhibitory actions on Cytochrome P450 enzymes, which are significant mechanisms in cancer precaution and tumor inhibition. In this paper, we reviewed lots of articles and summarized metabolism characteristics of flavanoids and metabolism interaction with Cytochrome P450 enzymes.

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2774. Recent advances of HIV/AIDS treatment with traditional Chinese medicine in China

By Wang Jian; Zou Wen
From Journal of traditional Chinese medicine = Chung i tsah ying wen pan / sponsored by All-China Association of Traditional Chinese Medicine, Academy of Traditional Chinese Medicine (2010), 30(4), 305-8, Language: English, Database: MEDLINE

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2775. The model of Western integrative medicine: the role of Chinese medicine

By Dobos Gustav; Tao Iven
From Chinese journal of integrative medicine (2011), 17(1), 11-20, Language: English, Database: MEDLINE
The basic concept of integrative medicine (IM) is that by combining mainstream (biomedicine) with complementary and alternative medicine (CAM), synergistic therapeutic effects can be attained. When the methods of mind/body medicine (MBM) are added to this combination, as in Western countries, a new concept emerges that drastically changes the approach toward illness. It is interesting to note that the joining of traditional Chinese medicine and Western medicine in the early days of the Peoples’ Republic of China preceded the Western model of IM by almost 50 years. Several elements that make up the key components of IM as practiced today in the West were already present in the Chinese version of IM, and Chinese medicine has played and continues to play an important role in advancing IM. However, one of the major differences between the Chinese and the Western models of IM today, besides MBM and some other treatment options, is that Western integrative medicine (WIM) strictly requires its CAM methods to be supported by scientific evidence. The therapeutic methods of IM and their applications are many and varied. However, they are most frequently employed to treat chronic medical conditions, e.g., bronchial asthma, rheumatic disease, chronic inflammatory bowel disorder and chronic pain. Other fields in which IM may be applied are internal medicine (inflammatory bowel diseases and cardiovascular diseases), musculoskeletal disorders, oncology (chemotherapy-induced side effects), obstetrics and gynecology (dysmenorrhea, endometriosis, infertility and menopausal complaints), pediatrics, geriatrics, neurology (migraine and chronic headache), and psychiatry (anxiety and depression). The concept of WIM is discussed here in detail by reviewing its scope and implications for the practice of medicine and focusing on the role of Chinese medicine in WIM.

2776. Saikosaponins: a potential treatment option for systemic lupus erythematosus

By Wu G-C; Wu H; Fan L-Y; Pan H-F
From Irish journal of medical science (2011), 180(1), 259-61, Language: English, Database: MEDLINE

While the exact cause of systemic lupus erythematosus (SLE) is still unknown, modern medicine has a number of effective treatments for this complex disorder. Corticosteroid hormones help reduce inflammation, antimalarial treatments address flare-ups and immunosuppressive medications work to keep the immune system in check. All these therapies are well tolerated, but accompany an increased risk of infection and nephrotoxicity. Recently, several studies showed that a number of natural and herbal products may also help some SLE patients deal with the debilitating symptoms. In this brief report, we proposed a traditional Chinese medicinal herb--Saikosaponins, and discussed its potential as a treatment option for SLE.

2777. Disorder of Tiangui (kidney essence) and reproductive dysfunction in patients with polycystic ovary syndrome

By Wang Bo; Yan Wei; Hou Li-hui; Wu Xiao-ke
From Zhong xi yi jie he xue bao = Journal of Chinese integrative medicine (2010), 8(11), 1018-22, Language: Chinese, Database: MEDLINE

Traditional Chinese medicine (TCM) usually views polycystic ovary syndrome (PCOS) as a menstrual disease or infertility disease. Reproductive dysfunction in PCOS is characterized by ovarian androgen excess and disturbance of follicular development, and its main clinical manifestations include delayed menstruation, scant menstruation, amenorrhea or infertility. Insulin resistance is a key pathological mechanism of PCOS. "Tiangui" (kidney essence) as a sex-stimulating essence in female in TCM theory, is essential to the menstruation and pregnancy of women. The disturbance of Tiangui (including time, status and rhythm) would result in female reproductive problems. Current studies of Tiangui indicate that ovary is the target organ of PCOS treatment, and its functional characteristics are consistent with the properties of Tiangui in time frame, state form and rhythm cycle. It is then concluded that ovarian dysfunction in PCOS can be expressed as disorder of Tiangui.

2778. Effectiveness of CAM therapy: understanding the evidence

By Staud Roland
From Rheumatic diseases clinics of North America (2011), 37(1), 9-17, Language: English, Database: MEDLINE
By definition, complementary and alternative medicine (CAM) attempts to diagnose and treat illnesses in unconventional ways. CAM has been classified as: (1) alternative medical systems (e.g., traditional Chinese medicine [including acupuncture], naturopathic medicine, ayurvedic medicine, and homeopathy); (2) biologic-based therapies (e.g., herbal, special dietary, and individual biologic treatments); (3) energy therapies (e.g., Reiki, therapeutic touch, magnet therapy, Qi Gong, and intercessory prayer); (4) manipulative and body-based systems (e.g., chiropractic, osteopathy, and massage); and (5) mind-body interventions (e.g., meditation, biofeedback, hypnotherapy, and the relaxation response). This review focuses on how to assess the effectiveness of CAM therapies for chronic musculoskeletal pains, emphasizing the role of specific and nonspecific analgesic mechanisms, including placebo.

2779. Effects of mineral nutrition on metabolism of flavonoids in medicinal plants

By Liu Dahui; Guo Lanping; Huang Luqi; Jin Hang; Liu Wei; Zhu Duanwei

Flavonoids are an important effective component of traditional Chinese medicine, which are widely distributed in the plant kingdom. The biosynthesis of flavonoid in plants is affected and regulated by various environmental factors. For a necessary environmental factor to plant growth and development, mineral nutrients are paid more and more attention on the regulation to the metabolism of flavonoids in medicinal plants. In this paper, an overview of flavonoids biosynthetic pathway, and the macroelements, microelements and rare earth elements on the metabolism of flavonoids in medicinal plants are presented. And the regulation mechanism of them are also analyzed and discussed.

2780. Clinical research evidence of cupping therapy in China: a systematic literature review

By Cao Huijuan; Han Mei; Li Xun; Dong Shangjuan; Shang Yongmei; Wang Qian; Xu Shu; Liu Jianping
From BMC complementary and alternative medicine (2010), 1070, Language: English, Database: MEDLINE

BACKGROUND: Though cupping therapy has been used in China for thousands of years, there has been no systematic summary of clinical research on it. This review is to evaluate the therapeutic effect of cupping therapy using evidence-based approach based on all available clinical studies.

METHODS: We included all clinical studies on cupping therapy for all kinds of diseases. We searched six electronic databases, all searches ended in December 2008. We extracted data on the type of cupping and type of diseases treated.

RESULTS: 550 clinical studies were identified published between 1959 and 2008, including 73 randomized controlled trials (RCTs), 22 clinical controlled trials, 373 case series, and 82 case reports. Number of RCTs obviously increased during past decades, but the quality of the RCTs was generally poor according to the risk of bias of the Cochrane standard for important outcome within each trials. The diseases in which cupping was commonly employed included pain conditions, herpes zoster, cough or asthma, etc. Wet cupping was used in majority studies, followed by retained cupping, moving cupping, medicinal cupping, etc. 38 studies used combination of two types of cupping therapies. No serious adverse effects were reported in the studies.

CONCLUSIONS: According to the above results, quality and quantity of RCTs on cupping therapy appears to be improved during the past 50 years in China, and majority of studies show potential benefit on pain conditions, herpes zoster and other diseases. However, further rigorous designed trials in relevant conditions are warranted to support their use in practice.

2781. Pharmacodynamic studies of Chinese medicine at levels of whole animal, cell and molecular models

By Qv Xiao-Ying; Jiang Jian-Guo; Piao Jin-Hua
From Current medicinal chemistry (2010), 17(36), 4521-37, Language: English, Database: MEDLINE
Traditional Chinese medicine (TCM) has undergone a long history of clinical practice, which can arrive at ideal therapeutic effects by regulating the body's overall function. However, the complex nature of TCM determines a difficult study on the mechanism and material base of TCM. The current investigations of TCM indicate that the development of modern biotechnology will offer a strong arm in the process of the study. This review focused on the application of the modern biotechnology, including transgenic, gene knockout, cell membrane chromatography (CMC), molecular biochromatography (MBC), gene chips, proteomics, etc. in the research of pharmacodynamic effects of TCM at levels of whole animal, cell and molecular models over the past decade. The whole animal models established by the transgenic and gene knockout technology can truly reflect the characteristics of the target gene activity. Thereby the created animal model could share the pathology of maximum degree of approximation. Cellular models are especially suitable for the situation that functional proteins, enzymes, or drug targets are difficult to separate, or the characteristics of the drugs are unidentified. The utilization of MBC can not only achieve high-throughput screening, but also directly detect the chemical composition of the active components relative to the receptors. Based on the remarkable progress of genomics and proteomics and the technique of gene chips, the bioactive components of TCM can be screened through observing the changes of genes or proteins before and after the compounds acting on the cells.

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Traditional Chinese medicines (TCMs), a key branch of natural medicines, play an important role in the treatment of diseases because of their reliable clinical performance. Identification of their active compounds constitutes a bottleneck in the development of TCMs. Screening and analyzing of active compounds is a challenge in TCMs research. This review summarizes recent progress in the development of biological fingerprinting strategies for screening and analyzing of bioactive compounds in TCMs using molecular recognition, metabolism and omics tools. The evaluated strategies including the following techniques: microdialysis/centrifugal ultrafiltration-HPLC, biochromatography, metabolic fingerprinting analysis, 2-dimensional biochromatography and omics fingerprinting analysis.

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2785. Recent advances in quality control of traditional Chinese medicines
By Liu E-Hu; Qi Lian-Wen; Li Kai; Chu Chu; Li Ping
From Combinatorial chemistry & high throughput screening (2010), 13(10), 869-84, Language: English, Database: MEDLINE

Traditional Chinese medicines (TCMs) have been used for disease prevention and therapy in China for a long time and are becoming increasingly popular over the world. However, TCMs are complex mixtures and contain usually hundreds of chemically different constituents, which make the quality control of crude drugs and their medical preparations extremely difficult. Therefore, better analytical strategies to assure their efficacy, safety and consistency are in great demand. The present work provides an overview of the development of quality control for TCMs based on microscopic and molecular identification, quantitative and qualitative analysis, fingerprint, combination of fingerprint and multi-component quantification, as well as activity-integrated fingerprint over the last five years. The biological fingerprinting analysis of TCMs with targeting absorption, distribution, metabolism, excretion by chromatographic and chemometric method are also highlighted due to its broad application in the quality control of TCMs. The comprehensive methods analyzed with modern hyphenated techniques are strongly recommended to assess the authenticity, quality consistency and stability of TCMs.

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2786. Recent applications of capillary electrophoresis in the analysis of traditional Chinese medicine
By Feng Airong; Tian Bolin; Hu Jiming; Zhou Ping
From Combinatorial chemistry & high throughput screening (2010), 13(10), 954-65, Language: English, Database: MEDLINE

Traditional Chinese medicines (TCMs) are generally mixtures of herbal plants or extracts which comprise hundreds of different constituents with widely difference in the content and physiochemical properties. In order to analyze bioactive compounds in TCMs and control the quality, a large number of analytical tools have been developed, among which capillary electrophoresis (CE) has become a powerful technique with increasing importance. Some formats of CE, including capillary zone electrophoresis, micellar electrokinetic chromatography, non-aqueous CE and capillary electrochromatography have been widely employed for the analysis of TCMs. The general characteristics of these formats are briefly described, and their applications to the analysis of TCMs during the past five years are summarized.

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2787. Counter-current chromatography for high throughput analysis of natural products
By Wu Shihua; Liang Junling
From Combinatorial chemistry & high throughput screening (2010), 13(10), 932-42, Language: English, Database: MEDLINE
Counter-current chromatography (CCC) is a unique support-free liquid-liquid partition chromatography winning wide applications in the separation of various components from natural or synthetic mixtures. It has been one of the prime methods for isolating compounds from Traditional Chinese Medicine (TCM) and other comprehensive natural products. Although early CCC models produced a long-standing false image that CCC is a time-consuming technique, rapid and high-performance CCC devices and methods for high-throughput analysis of natural mixtures have been advanced. For instances, multi-channel CCC, dual CCC, elution-extrusion CCC, and solvent simplification protocols can provide high-throughput CCC analysis and produce high purity of compounds or large natural product libraries for drug discovery. This review summarizes the recent advancements of CCC in the high-throughput analysis of natural product with an emphasis on the developments of instruments and methods.

~0 Citings

2788. Natural products derived from traditional chinese medicine as novel inhibitors of the epidermal growth factor receptor
By Sertel Serkan; Plinkert Peter K; Efferth Thomas
From Combinatorial chemistry & high throughput screening (2010), 13(10), 849-54, Language: English, Database: MEDLINE

The epidermal growth factor receptor (EGFR) has become an important molecular target in cancer therapy. Various small molecules and therapeutic antibodies targeting EGFR family members have been developed during recent years and are established in clinical oncology. However, increasing clinical application of EGFR tyrosine kinase inhibitors has resulted in the development of resistance to EGFR-targeting drugs due to the selection of EGFR-mutated variants. This phenomenon forced the search for novel EGFR inhibitors with activity towards EGFR-mutant tumors. This review describes recent achievements in natural products derived from medicinal plants as novel EGFR inhibitors.

~0 Citings

2789. Traditional Chinese medicine and oral diseases: today and tomorrow
By Zheng L W; Hua H; Cheung L K
From Oral diseases (2011), 17(1), 7-12, Language: English, Database: MEDLINE

With a history of over 2000 years, traditional Chinese medicine (TCM) evolves into a unique system of diagnosing and treating illnesses. It is a challenge to convey the fundamentals of this traditional medicine to our Western colleagues because of the differences in language, philosophy and concept of diagnosis and treatment. This review attempts to tackle these barriers by introducing several widely used Chinese medicines for treating oral diseases. China Journals Full-text Database and Pubmed were used as the searching engines. Although many studies have demonstrated that the Chinese medicines are effective in treating oral diseases including recurrent aphthous stomatitis, oral lichen planus, leukoplakia, and Sjogren's syndrome, most of them lacked standard criteria of post-treatment assessment and laboratory evidence. Randomized controlled clinical trials with specific assessment criteria are required to close the gap between TCM and evidenced-based medicine.

~0 Citings

2790. Proteomics and syndrome of Chinese medicine
By Lu Chuan-Li; Qv Xiao-Ying; Jiang Jian-Guo
From Journal of cellular and molecular medicine (2010), 14(12), 2721-8, Language: English, Database: MEDLINE

Syndrome of Chinese medicine is an understanding of the regularity of disease occurrence and development and its performance of symptoms. Syndrome is the key to recognize diseases and the foundation to treat them. However, because of the complexity of the concept and the limitation of present investigations, the research of syndrome is hard to go further. Proteomics has been received extensive attention in the area of medical diagnosis and drug development. In the holistic and systemic context, proteomics have a convergence with traditional Chinese medicine (TCM) syndrome, which could overcome the one-sidedness and singleness of TCM and avoid the complication and tedious processes. Chinese medicine has a wealth of experience and proteomics has a substantial research potential, the integration of the two aspects will bring a great enhancement of our knowledge of disease.

~0 Citings
2791. Modern European monographs for quality control of Chinese herbs
By Bauer Rudolf; Franz Gerhard
From Planta medica (2010), 76(17), 2004-11, Language: English, Database: MEDLINE

The actual concern about the safety and efficacy of herbal drugs originating from traditional Chinese medicine (TCM) is based on observations that these medicinal plants may have a high risk potential due to insufficient definitions, problems with identity, purity and falsifications. No uniform legal status for these groups of herbal drugs currently exists in the European Union. For quality control, monographs for TCM herbs can mainly be found in the Pharmacopoeia of the Peoples Republic of China. Based on these facts the Commission of the European Pharmacopoeia decided in 2005 to establish TCM-herbal drug monographs for the most important medicinal plants imported from Far East. These new monographs had to be established and evaluated on the basis of existing monographs in the Chinese Pharmacopoeia (ChP), English edition 2005. Due to important differences in the overall features of EP and ChP, a simple adapt/adopt procedure was not feasible. Therefore, specialist groups were mandated with a corresponding working programme. Some results and actual problems related to this working programme will be presented and discussed.

~0 Citings

2792. Toxicological risks of Chinese herbs
By Shaw Debbie
From Planta medica (2010), 76(17), 2012-8, Language: English, Database: MEDLINE

As traditional Chinese medicine (TCM) has become more popular there have been increasing concerns about safety and potential toxicity of the Chinese materia medica (CMM) comprising plants, animal parts and minerals. The potential toxicity of many CMM is well recognised in TCM and to reduce risks use of some herbs is restricted whilst specific processing methods have been developed to modify the activities/toxicity of others. However adverse reactions have been reported, many of these are due misuse or abuse of Chinese medicine. The main problem remains products adulterated with pharmaceuticals for weight loss or erectile dysfunction. But some herbs have narrow therapeutic ranges (e.g., Aconitum species) so toxic effects are frequently reported. Toxic effects from chronic or cumulative dosing are difficult to detect in the traditional setting and recent reports have demonstrated the health problems from Aristolochia species. Despite safety concerns, Chinese medicine appears to be relatively safe with comparatively few reports of adverse reactions compared with overall drug reports. The wealth of information in the Chinese literature needs to be more widely available. As TCM is widely used by patients, improved pharmacovigilance and pharmacoepidemiology can contribute valuable safety information, relevant to clinical use.

~0 Citings

2793. GAP production of TCM herbs in China
By Zhang Bengang; Peng Yong; Zhang Zhao; Liu Haitao; Qi Yaodong; Liu Shuang; Xiao Peigen
From Planta medica (2010), 76(17), 1948-55, Language: English, Database: MEDLINE

In this paper, we briefly review international Good Agricultural Practice (GAP) regulations related to traditional Chinese medicine herbs (TCM herbs) and the background of the drafting process and the implementation of GAP for TCM herbs in China. We also have summarized progress and achievements since the implementation of GAP for TCM herbs in 2002. Up to 2010, a total of 99 GAP bases were formally adopted by GAP certification. They cover 22 provinces/municipalities, and 49 species of TCM herbs are currently cultivated in these GAP bases. Finally, we discuss the main problems in GAP implementation for Chinese crude drugs and put forward some suggestions to tackle them.

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2794. Perspective of chemical fingerprinting of Chinese herbs

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The holistic system of traditional Chinese medicine (TCM) is an integrity of the ingredients contained in the Chinese herbal medicines, which creates a challenge in establishing quality control standards for raw materials and the standardization of finished herbal drugs because no single component is contributing to the total efficacy. Chromatographic fingerprinting analysis represents a rational approach for the quality assessment of TCM. It utilizes chromatographic techniques, which include CE, GC, HPLC, HPTLC, etc., to construct specific patterns for recognition of multiple compounds in TCMs. Thus, chromatographic fingerprinting analysis of herbal medicines represents a comprehensive qualitative approach for the purpose of species authentication, evaluation of quality, and ensuring the consistency and stability of herbal drugs and their related products. The pragmatic comprehensive chromatographic fingerprinting analysis can disclose the detectable ingredients composition and concentration distribution under quantifiable operational conditions and therefore provide real-time quality information. It may leave a "gray" entity at the primary stage. However, consecutive study will deepen the knowledge and reduce its "gray scale", increase the transparency gradually, thereby strengthening its quality assessment potency.

~0 Citings

2795. Metabolomics: towards understanding traditional Chinese medicine
By Zhang Aihua; Sun Hui; Wang Zhigang; Sun Wenjun; Wang Ping; Wang Xijun
From Planta medica (2010), 76(17), 2026-35, Language: English, Database: MEDLINE

Metabolomics represent a global understanding of metabolite complement of integrated living systems and dynamic responses to the changes of both endogenous and exogenous factors and has many potential applications and advantages for the research of complex systems. As a systemic approach, metabolomics adopts a "top-down" strategy to reflect the function of organisms from the end products of the metabolic network and to understand metabolic changes of a complete system caused by interventions in a holistic context. This property agrees with the holistic thinking of Traditional Chinese Medicine (TCM), a complex medical science, suggesting that metabolomics has the potential to impact our understanding of the theory behind the evidence-based Chinese medicine. Consequently, the development of robust metabolomic platforms will greatly facilitate, for example, the understanding of the action mechanisms of TCM formulae and the analysis of Chinese herbal (CHM) and mineral medicine, acupuncture, and Chinese medicine syndromes. This review summarizes some of the applications of metabolomics in special TCM issues with an emphasis on metabolic biomarker discovery.

~0 Citings

2796. Application of mid-infrared spectroscopy in the quality control of traditional Chinese medicines
By Sun Suqin; Chen Jianbo; Zhou Qun; Lu Guanghua; Chan Kelvin

Chinese herbal medicines are often referred to as Chinese materia medica (CMM). Composite formulae containing mixtures of CMM are prescribed for treatment and prevention of diseases in the practice of traditional Chinese medicine (TCM). Some of the well-known CMM formulae (Fufang in Chinese) are manufactured and marketed as proprietary Chinese medicines (PCM). Quality assessment and assurance of these products are difficult; they are a challenging task. Mid-infrared spectroscopy, a classic molecular structure analysis method, has been innovatively applied in the quality control of TCM, and has gained significant impact and advancement in analytical fields. Infrared fingerprinting features appear particularly suitable for the identification of multicomponent matrices in samples whose chemical integrity has not been altered or destroyed because no extraction procedure is needed. This review summarizes and gives an overall view on the application of mid-infrared and two-dimensional correlation infrared (2D-IR) spectroscopy as well as chemometric techniques in the identification of CMM, investigation of TCM processing procedures, and analysis of herb extracts and preparations.

~0 Citings

2797. Clinical studies with traditional Chinese medicine in the past decade and future research and development
By Jiang Miao; Yang Jing; Zhang Chi; Liu Baoyan; Chan Kelvin; Cao Hongxin; Lu Aiping
From Planta medica (2010), 76(17), 2048-64, Language: English, Database: MEDLINE

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Traditional Chinese medicine (TCM) is currently considered a complementary or alternative medical system in most Western countries and has been increasingly accepted worldwide. More and more clinical trials on TCM have been conducted internationally, and scientists worldwide are becoming increasingly interested in the evaluation of clinical efficacy of TCM based on clinical trials. This paper reviews the situation of clinical trials on TCM in the past decade, including systematic reviews about clinical trials either focusing on the treatment of disease with TCM approaches or focusing on one herbal product, conduction of clinical trials on TCM either with randomization and controlled methods or general observation. Some general issues on the conduct of clinical trials on TCM, such as randomization, control, quality of life (QOL), patient reported outcomes (PROs) and biomarkers, quality control, safety evaluation and case studies, are discussed, and accordingly some suggestions are proposed.

~1 Citing

2798. Systems biology-based diagnostic principles as pillars of the bridge between Chinese and Western medicine
By van der Greef Jan; van Wietmarschen Herman; Schroen Jan; Wang Mei; Hankemeier Thomas; Xu Guowang
From Planta medica (2010), 76(17), 2036-47, Language: English, Database: MEDLINE
Innovative systems approaches to develop medicine and health care are emerging from the integration of Chinese and Western medicine strategies, philosophies and practices. The two medical systems are highly complementary as the reductionist aspects of Western medicine are favourable in acute disease situations and the holistic aspects of Chinese medicine offer more opportunities in chronic conditions and for prevention. In this article we argue that diagnosis plays a key role in building the bridge between Chinese and Western medicine. Recent advances in the study of health, healing, placebo effects and patient-physician interactions will be discussed pointing out the development of a system-based diagnosis. Especially, a system biology-based diagnosis can be used to capture phenotype information, leading towards a scientific basis for a more refined patient characterization, new diagnostic tools and personalized health strategies. Subtyping of rheumatoid arthritis patients based on Chinese diagnostic principles is discussed as an example. New insights from this process of integrating Western and Chinese medicine will pave the way for a patient-centred health care ecosystem.

~1 Citing

2799. Toxicogenomics for the prediction of toxicity related to herbs from traditional Chinese medicine
By Youns Mahmoud; Hoheisel Jorg D; Efferth Thomas
Toxicogenomics represents the integration of genomics and toxicology to investigate the interaction between genes and environmental stress in human health. It is a scientific field that studies how the genome is involved in responses to environmental stressors and toxicants. The patterns of altered gene expression that are caused by specific exposures or disease outcomes reveal how toxicants may act and cause disease. Nowadays, toxicogenomics faces great challenges in discriminating the molecular basis of toxicity. We do believe that advances in this field will eventually allow us to describe all the toxicological interactions that occur within a living system. Toxicogenomic responses of a toxic agent in one species (e.g., laboratory animals) may predict the mode of action in another species (e.g., humans) (predictive toxicology). Development and application of toxicogenomic databases and new bioinformatics tools are among the most important aspects of toxicogenomic research which will facilitate sharing and interpretation of the huge amount of biological information generated in this field. Medicinal herbs have played an important role in pharmacy from ancient to modern times. Nowadays, there is a revival of interest in medicinal plants and an increasing scientific interest in bioactive natural products. Medicinal herbs are usually considered to be nontoxic. However, the consumption of herbs could produce prominent toxic effects either due to inherent toxicity or to contaminants (heavy metals, microorganisms, pesticides, toxic organic solvents, radioactivity, etc.). Therefore, a critical assessment of their toxicity is an urgent issue. This review explores the field of toxicogenomics, pinpoints some of its research approaches and describes the challenges it faces. In particular, Chinese herbal preparations have been implicated.

~1 Citing

2800. Anti-influenza agents from Traditional Chinese Medicine
2801. Evidence-based practice method of integrative Chinese and Western medicine based on literature retrieval through PICO question and complementary and alternative medicine topics

By Yan Xiu-feng; Ni Qing; Wei Jun-ping; Xu Hao
From Chinese journal of integrative medicine (2010), 16(6), 542-8, Language: English, Database: MEDLINE

An evidence-based practice method according to literature retrieval through PICO (Patients, Intervention, Comparison, Outcome) questions and complementary and alternative medicine (CAM) topics, which can obtain helpful evidence for guiding clinical practice, was introduced with a practical example in this paper. The knowledge of diseases and Western medicine treatment can be acquired by literature retrieval through PICO question, while searching by CAM topics may provide evidence for Chinese medicine (CM). Thus the author held that literature retrieval through both PICO question and CAM topics was an ideal evidence-based practice method for integrative Chinese and Western medicine (ICWM). However, since the standard in CM evidence hierarchy is still under study, the value of the CAM thematic retrieval method remains very limited. In the future, studies on the definition and hierarchy of CM evidences and the herb-drug interaction between Western and Chinese medicine during a combination therapy should be strengthened to improve the status of ICWM evidence-based practice.

2802. New perspectives on innovative drug discovery: an overview

By Pan Si Yuan; Pan Shan; Yu Zhi-Ling; Ma Dik-Lung; Chen Si-Bao; Fong Wang-Fun; Han Yi-Fan; Ko Kam-Ming

Despite advances in technology, drug discovery is still a lengthy, expensive, difficult, and inefficient process, with a low rate of success. Today, advances in biomedical science have brought about great strides in therapeutic interventions for a wide spectrum of diseases. The advent of biochemical techniques and cutting-edge bio/chemical technologies has made available a plethora of practical approaches to drug screening and design. In 2010, the total sales of the global pharmaceutical market will reach 600 billion US dollars and expand to over 975 billion dollars by 2013. The aim of this review is to summarize available information on contemporary approaches and strategies in the discovery of novel therapeutic agents, especially from the complementary and alternative medicines, including natural products and traditional remedies such as Chinese herbal medicine.

2803. Chinese herbal medicine for chronic neck pain due to cervical degenerative disc disease

By Trinh Kien; Cui Xuejun; Wang Yong-Jun
From Spine (2010), 35(24), 2121-7, Language: English, Database: MEDLINE
STUDY DESIGN: Systematic review. OBJECTIVE: To assess the efficacy of Chinese herbal medicines in treating chronic neck pain with radicular signs or symptoms. SUMMARY OF BACKGROUND DATA: Chronic neck pain with radicular signs or symptoms is a common condition. Many patients use complementary and alternative medicine, including traditional Chinese medicine, to address their symptoms. METHODS: We electronically searched CENTRAL, MEDLINE, EMBASE, CINAHL, and AMED (up to 2009), the Chinese Biomedical Database and related herbal medicine databases in Japan and South Korea (up to 2007). We also contacted content experts and hand searched a number of journals published in China. We included randomized controlled trials with adults with a clinical diagnosis of cervical degenerative disc disease, cervical radiculopathy, or myelopathy supported by appropriate radiologic findings. The interventions were Chinese herbal medicines. The primary outcome was pain relief, measured with a visual analogue scale, numerical scale, or other validated tool. RESULTS: All 4 included studies were in Chinese; 2 of which were unpublished. Effect sizes were not clinically relevant and there was low quality evidence for all outcomes due to study limitations and sparse data (single studies). Two trials (680 participants) found that Compound Qishe Tablets relieved pain better in the short-term than either placebo or Jingfukang; one trial (60 participants) found than an oral herbal formula of Huangqi relieved pain better than Mobicox or Methycobal, and another trial (360 participants) showed that a topical herbal medicine, Compound Extractum Nucis Vomicae, relieved pain better than Diclofenac Diethylamine Emulgel. CONCLUSION: There is low quality evidence that an oral herbal medication, Compound Qishe Tablet, reduced pain more than placebo or Jingfukang and a topical herbal medicine, Compound Extractum Nucis Vomicae, reduced pain more than Diclofenac Diethylamine Emulgel. Further research is very likely to change both the effect size and our confidence in the results.

~0 Citings

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2804. Unearthing a source of medicinal molecules
By Cooper Edwin L; Balamurugan M
From Drug discovery today (2010), 15(21-22), 966-72, Language: English, Database: MEDLINE

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2805. Application of chromatography technology in the separation of active components from nature derived drugs
By Zhao H-Y; Jiang J-G
From Mini reviews in medicinal chemistry (2010), 10(13), 1223-34, Language: English, Database: MEDLINE

Chromatography technology has been widely applied in various aspects of the pharmacy research on traditional Chinese medicine (TCM). This paper reviews literatures, published in the past decades, on the separation of active component from TCM using chromatography technology. Ultra-performance liquid chromatography (UPLC), high-speed counter-current chromatography (HSCCC), rapid resolution liquid chromatography (RRLC), supercritical fluid chromatography (SFC), affinity chromatography (AC), and bio-chromatography (BC) are introduced in detail. Compared to high performance of high-performance liquid chromatography (HPLC), analysis time and solvent loss are significantly reduced by UPLC with increase in resolution and sensitivity. Some ingredients from nature derived drugs can be separated more completely by HSCCC, which has remarkable characteristics such as low cost, simple operation and no pollution. Trace components from complex systems can be selectively and efficiently separated and purified by AC. This feature makes it effective in isolation and identification of active components of Chinese herbs. Interference of some impurities could be excluded by BC. Active ingredients that are difficult to be separated by normal method can be acquired by SFC. Currently, application of novel chromatography techniques in TCM is still in the exploratory stage and many problems, such as preparation of stationary phase and detection, need to be solved.

~0 Citings

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2806. Transcription factor NF-κB inhibitors as single therapeutic agents or in combination with classical chemotherapeutic agents for the treatment of hematologic malignancies
By Fuchs Ota
From Current molecular pharmacology (2010), 3(3), 98-122, Language: English, Database: MEDLINE
Nuclear factor-kappaB (NF-κB) upregulates the transcription of proteins that promote cell survival, stimulate growth, induce angiogenesis and reduce susceptibility to apoptosis. NF-κB signaling pathway is constitutively activated in myelodysplastic syndrome (MDS), acute myeloid leukemia (AML), acute lymphocytic leukemia (ALL), chronic myeloid leukemia (CML), chronic lymphocytic leukemia (CLL), lymphomas and in multiple myeloma (MM). Inactive NF-κB is bound in the cytoplasm to its inhibitor IκB, which masks its nuclear localisation signal. Two protein kinases with a high degree of sequence similarity, IKKα and IKKβ, mediate phosphorylation of IκB proteins and represent a convergence point for most signal transduction pathways leading to NF-κB activation. The overexpression of NF-κB and its anti-apoptotic cytoprotective effect suggest that it might be a useful therapeutic target for the treatment of hematologic malignancies. Several drugs effective for the treatment of MM, including proteasome inhibitors, thalidomide, lenalidomide and arsenic trioxide, block NF-κB activation. New agents with NF-κB inhibitory activity enhance the anti-MM effects of conventional chemotherapeutic agents and reduce different side-effects. Triptolide (diterpenoid triepoxyde), a purified component of a traditional Chinese medicine, extracted from a shrub-like vine named Trypterygium wilfordii Hook F (TWHF) inhibits transcriptional activation of NF-κB and downregulates the expression of various NF-κB-regulated genes. Triptolide (10-80 ng/ml) induces apoptosis of MM cells and effectively inhibits cell growth of MM cells. NF-κB activation can be also inhibited by IKKβ-selective inhibitors, PS-1145dihydrochloride, MLN120B (both Millennium Pharmaceuticals, Cambridge, MA) and BMS-345541 (Bristol-Myers Squibb, Princeton, NJ). LC-1, the dimethylamino-parthenolide (DMAPT) derivative demonstrated significant cytotoxicity to AML blasts targeting NF-κB.

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2807. The influence of traditional herbal formulas on cytokine activity
By Burns J J; Zhao Lijun; Taylor Ethan Will; Spelman Kevin
From Toxicology (2010), 278(1), 140-59, Language: English, Database: MEDLINE

Many of the botanical "immunomodulators", a class of herbal medicines widely recognized in traditional medical systems such as Chinese Medicine (TCM) and Ayurvedic Medicine, alter immune function and may offer clinically relevant therapeutics or leads to therapeutics. Many of these traditional remedies are prepared from combinations of medicinal plants which may influence numerous molecular pathways. These effects may differ from the sum of effects from the individual plants and therefore, research demonstrating the effects of the formula is crucial for insights into the effects of traditional remedies. In this review we surveyed the primary literature for research that focused on combinations of medicinal plants and effects on cytokine activity. The results demonstrate that many extracts of herb mixtures have effects on at least one cytokine. The most commonly studies cytokines were IL-4, IL-6, IL-10, TNF and IFN-γ. The majority of the formulas researched derived from TCM. The following formulas had activity on at least three cytokines; Chizukit N, CKBM, Daeganghwal-tang, Food Allergy Formula, Gamcho-Sasim-Tang, Hachimi-jio-gan, Herbkinies, Hochuekkki, Immune System Formula, Jeo-Dang-Tang, Juzen-taiho-to, Kakkon-to, Kan jang, Mao-Bushi-Saishin-to, MSSM-002, Ninjin-youei-to, PG201, Protec, Qing-huo-bai-du-yin, Qingfu Guanjieshu, Sambucol Active Defense, Seng-fu-tang, Shin-Xiao-Xiang, Tien Hsien, Thuja formula, Unkei-to, Viggonic, Wheeze-relief-formula, Xia-Bai-San, Yangyuk-Sanhuwa-Tang, Yi-fey Huen-hou, and Yulhahansotang. Of the western based combinations, formulas with Echinacea spp. were common and showed multiple activities. Numerous formulas demonstrated activity on both gene and protein expression. The research demonstrates that the reviewed botanical formulas modulate cytokine activity, although the bulk of the research is in vitro. Therapeutic success using these formulas may be partially due to their effects on cytokines. Further study of phytotherapy on cytokine related diseases/syndromes is necessary.

~0 Citings

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2808. Secondary metabolites of plants from the genus Saussurea: chemistry and biological activity
By Wang Yu-Fang; Ni Zhi-Yu; Dong Mei; Cong Bin; Shi Qing-Wen; Gu Yu-Cheng; Kiyota Hiromasa
From Chemistry & biodiversity (2010), 7(11), 2623-59, Language: English, Database: MEDLINE
The Asteraceae family comprises ca. 1000 genera, mainly distributed in Asia and Europe. Saussurea DC., as the largest subgenus of this family, comprises ca. 400 species worldwide, of which ca. 300 species occur in China. Most plants in China grow wild in the alpine zone of the Qingzang Plateau and adjacent regions at elevations of 4000 m. Plants of the genus Saussurea (Asteraceae) are used in both traditional Chinese folk medicine and Tibet folklore since they are efficacious in relieving internal heat or fever, harmonizing menstruation, invigorating blood circulation, stopping bleeding, alleviating pain, increasing energy, and curing rheumatic arthritis. A large number of biologically active compounds have been isolated from this genus. This review shows the chemotaxonomy of these compounds (215 compounds) such as sesquiterpenoids (101 compounds), flavonoids (19 compounds), phytosterols (15 compounds), triterpenoids (25 compounds), lignans (32 compounds), phenolics (23 compounds), and chlorophylls (11 compounds). Biological activities (anti-inflammatory, anticancer, antitumor, hepatoprotective, anti-ulcer, cholagogic, immunosuppressive, spasmyolytic, antimicrobial, antiparasitic, antifeedant, CNS depressant, antioxidant, etc.) of these compounds, including structure-activity relationships, are also discussed.

2809. Drug development from natural products: exploiting synergistic effects
By Ulrich-Merzenich Gudrun; Panek D; Zeitler H; Vetter H; Wagner H

Drug development in phytomedicine has been focused in the past on the discovery and analysis of new structures from natural products. The search aimed at the determination of the single “active principle” in plants, based on the assumption that a plant has one or a few ingredients which determine its therapeutic effects. But traditional systems of medicines like Ayurveda, traditional Chinese medicine or the European phytotherapy generally assume that a synergy of all ingredients of the plants will bring about the maximum of therapeutic efficacy. This approach has for long been impossible to investigate since adequate methods to standardize complex plant mixtures as well as to rationalize complex mode of actions were lacking. The introduction of high throughput technologies provides the opportunity to determine profiles of plants and to systematically explore the mode of action of combinatory drug regimes. The present review highlights the concept of synergy and gives examples of synergistic effects of plant constituents. It elaborates on how the high throughput technologies can be used in drug development from natural products with the aim of creating evidence-based plant medications in prevention and treatment of different diseases in the form of new single treatments or new combinatory drug regimes while exploiting synergy-effects.

2810. Delivery of antiinflammatory nutraceuticals by nanoparticles for the prevention and treatment of cancer
By Nair Hareesh B; Sung Bokyung; Yadav Vivek R; Kannappan Ramaswamy; Chaturvedi Madan M; Aggarwal Bharat B
From Biochemical pharmacology (2010), 80(12), 1833-43, Language: English, Database: MEDLINE

Extensive research within the last two decades has revealed that most chronic illnesses, including cancer, diabetes, and cardiovascular and pulmonary diseases, are mediated through chronic inflammation. Thus, suppressing chronic inflammation has the potential to delay, prevent, and even treat various chronic diseases, including cancer. Various nutraceuticals from fruits, vegetables, vitamins, spices, legumes, and traditional Chinese and Ayurvedic medicines have been shown to safely suppress proinflammatory pathways; however, their low bioavailability in vivo limits their use in preventing and treating cancer. We describe here the potential of nanotechnology to fill this gap. Several nutraceuticals, including curcumin, green tea polyphenols, coenzyme Q, quercetin, thymoquinone and others, have been packaged as nanoparticles and proven to be useful in “nanochemoprevention” and “nano-chemotherapy”.

2811. Issues and controversies of hepatocellular carcinoma-targeted therapy clinical trials in Asia: experts' opinion
By Chen Pei-Jer; Furuse Junji; Han Kwang-Hyub; Hsu Chiuin; Lim Ho-Yeong; Moon Hanlim; Qin Shukui; Ye Sheng-Long; Yeoh Ee-Min; Yeo Winnie
From Liver international : official journal of the International Association for the Study of the Liver (2010), 30(10), 1427-38, Language: English, Database: MEDLINE
Asia has a disproportionate share of the world's burden of hepatocellular carcinoma (HCC). However, the highly regarded clinical practice guidelines and recommendations for the design and conduct of clinical trials for HCC largely reflect Western practice. In order to design mutually beneficial international clinical trials of promising targeted therapies, it is imperative to understand how the aetiology, staging and treatment of HCC differ between Asian and Western countries. Our group, comprising experts in oncology and hepatology from countries that constitute the Eastern Asian region, convened to compare and contrast our current practices, evaluate potential compliance with the clinical trial recommendations, and offer suggestions for modifications that would enhance international collaboration.

Here, we describe the results of our discussions, including recommendations for appropriate patient stratification based on potentially important differences in HCC aetiology, identification of practices that may confound interpretation of clinical trial outcomes (traditional Chinese medicine; antivirals that target hepatitis B virus; heterogeneous embolization procedures), suggestions for utilizing a common staging system in study protocols, recognition that sorafenib usage is limited by financial constraints and potentially increased toxicity in Asian patients, and expansion of patient populations that should be eligible for initial clinical trials with new agents.

~1 Citing

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2812. An update on immunotherapy for food allergy

By Scurlock Amy M; Jones Stacie M
From Current opinion in allergy and clinical immunology (2010), 10(6), 587-93, Language: English, Database: MEDLINE

PURPOSE OF REVIEW: Recent investigation has resulted in significant advances toward definitive therapeutic options for food allergy. In this review, we will explore novel immunotherapeutic interventions for the active treatment of food allergy. RECENT FINDINGS: Because the injection route for allergen immunotherapy to foods has been associated with an unacceptable risk of severe anaphylactic reactions, use of mucosally targeted therapeutic strategies is of significant interest for food allergy. Allergen-specific immunotherapeutic approaches such as oral, sublingual, epicutaneous, and peptide immunotherapy have demonstrated efficacy in increasing threshold dose and inducing immunologic changes associated with both desensitization and oral tolerance in animal and human trials. More global immunomodulatory strategies, such as Traditional Chinese Medicine and anti-IgE therapy have been shown to effectively target the allergic response, and clinical trials are ongoing to determine the efficacy and safety in human food allergy. SUMMARY: The advent of therapies that target the mucosal immune response to promote oral tolerance have shown great promise in the treatment of food hypersensitivity. However, there is still significant risk of adverse reactions associated with these therapeutic strategies and further study is needed to carefully advance these therapeutic modalities toward general clinical implementation.

~0 Citings

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2813. Chelidonium majus--an integrative review: traditional knowledge versus modern findings

By Gilca Marilena; Gaman Laura; Panait Elena; Stoian Irina; Atanasiu Valeriu

Chelidonium majus L. (family Papaveraceae), or greater celandine, is an important plant in western phytotherapy and in traditional Chinese medicine. Crude extracts of C. majus as well as purified compounds derived from it exhibit a broad spectrum of biological activities (antiinflammatory, antimicrobial, antitumoral, analgesic, hepatoprotective) that support some of the traditional uses of C. majus. However, herbal medicine also claims that this plant has several important properties which have not yet been scientifically studied: C. majus is supposed to have diuretic, antitussive and eye-regenerative effects. On the other hand, C. majus also has scientifically proven effects, e.g. anti-osteoporotic activity and radioprotection, which are not mentioned in traditional sources. Moreover, recent controversy about the hepatoprotective versus hepatotoxic effects of Chelidonium majus has renewed the interest of the medical community in this plant. This review is intended to integrate traditional ethno-medical knowledge and modern scientific findings about C. majus in order to promote understanding of its therapeutic actions as well as its toxic potential.

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2814. P2X receptors and modulation of pain transmission: focus on effects of drugs and compounds used in traditional Chinese medicine

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Adenosine triphosphate (ATP) is thought to play an important role in nociceptive transmission or pain signals. ATP is implicated in peripheral pain signaling by acting on P2X receptors. ATP can act on cell bodies of primary afferent fibers. Opening of P2X receptor channels and subsequent membrane depolarization are generally regarded as a key element for extracellular ATP to produce pain. Nociceptive neurons express homomeric P2X(3) as well as heteromeric P2X(2/3) receptors. Both types of channels can be expressed separately or together in individual neuron. Selective antagonists for P2X(3) and/or P2X(2/3) receptors may represent a novel series of useful analgesics. In addition to P2X(3) and P2X(2/3) receptors, other subtypes of the P2X receptor family are also involved in the modulation of nociceptive transmission (e.g. P2X(4), P2X(7) receptors). Chinese traditional medicine, i.e., tetramethylpyrazine (TMP), sodium ferulate (SF) and puerarin can antagonize the nociceptive or pain transmission mediated by P2X(3) and/or P2X(2/3) receptors in primary afferent neurons. P2X(3) and/or P2X(2/3) receptors are the pharmacological targets of TMP, SF and puerarin for the therapeutic treatment of pain. The myocardial ischemic injury enhanced the sensitization of sympathetic afferent neurons with increased intensity of P2X(3), P2X(2/3) immunoreactivity, protein and mRNA expression in SCG, SG or NG neurons. P2X(3), P2X(2/3) receptors antagonist A-317491 inhibited the transmission of cardiac nociceptive response. Myocardial ischemic nociceptive signaling via P2X(3) and P2X(2/3) receptors in the transmission of rat SCG, SG, NG neuronal circuits induces the sympathoexcitatory reflex to exaggerate myocardial tissue injury. Blocking the nociceptive transmission of SCG, SG, NG neuronal circuits mediated by P2X(3) and P2X(2/3) receptors may improve the cardiac dysfunction. P2X(3) and P2X(2/3) receptors in SCG, SG, NG neurons could be considered as new targets for treating myocardial ischemic injury and cardiac arrhythmia.

~0 Citings

2815. Acupuncture as a treatment for nocturnal enuresis

By Bower W F; Diao M

Acupuncture can influence spinal micturition centers and parasympathetic innervation to the urinary tract and is known to modulate brain function via the descending serotonergic system. There are numerous difficulties in evaluating the efficacy of acupuncture in patients with nocturnal enuresis (NE), since the patient group is frequently heterogenous and the intervention is commonly given in association with other modalities. Until recently incomplete reporting of the quality aspects of studies has also limited evaluation of treatment effects. The aim of this study was to systematically evaluate reports from both Western and Eastern medicines in which acupuncture was compared to some other treatment modality in children with nocturnal enuresis. Focusing on Chinese language sources 41 new studies of acupuncture for NE were identified, 13 of which were clinical trials that reported parameters of treatment and defined outcome measures of efficacy. A standardized data extraction form was used to evaluate outcome measures and to scrutinize the quality aspects of studies. All barr one study reported the efficacy rate of acupuncture as part of a TCM package to be higher than alarm therapy, the gold standard of Western medicine intervention for NE. Acupuncture as a monotherapy for the treatment of NE appears to be less effective than acupuncture given as part of a combined Traditional Chinese Medicine approach. Electroacupuncture enhances treatment outcomes.

~0 Citings

2816. Anxiety, depression and acupuncture: A review of the clinical research

By Pilkington Karen

Depression and anxiety together constitute a significant contribution to the global burden of disease. Acupuncture is widely used for treatment of anxiety and depression and use is increasing. The theoretical basis for acupuncture diagnosis and treatment derives from traditional Chinese medicine theory. An alternative approach is used in medical acupuncture which relies more heavily on contemporary neurophysiology and conventional diagnosis. Trials in depression, anxiety disorders and short-term acute anxiety have been conducted but acupuncture interventions employed in trials vary as do the controls against which these are compared. Many trials also suffer from small sample sizes. Consequently, it has not proved possible to accurately assess the effectiveness of acupuncture for these conditions or the relative effectiveness of different treatment regimens. The results of studies showing similar effects of needling at specific and non-specific points have further complicated the interpretation of results. In addition to measuring clinical response, several clinical studies have assessed changes in levels of neurotransmitters and other biological response modifiers in an attempt to elucidate the specific biological actions of acupuncture. The findings offer some preliminary data requiring further investigation.
2817. Neurotrophins and acupuncture
By Manni Luigi; Albanesi Marcello; Guaragna Morena; Barbaro Paparo Samuele; Aloe Luigi
From Autonomic neuroscience : basic & clinical (2010), 157(1-2), 9-17, Language: English, Database: MEDLINE

The aim of this review is to report recent findings and ongoing studies on the effects of acupuncture on endogenous biological mediators, in particular on neurotrophins such as nerve growth factor (NGF) and brain-derived neurotrophic factor (BDNF). Acupuncture is a therapeutic technique and is a part of Traditional Chinese Medicine (TCM). Western descriptions of the clinical efficacy of acupuncture on pain, inflammation, motor dysfunction, mood disorders, and seizures are based on the stimulation of several classes of sensory afferent fibers and the consequent activation of physiological processes similar to those resulting from physical exercise or deep massage. The established research on the neuro-physiological correlates of acupuncture has pointed towards endogenous opioids as the principal biological mediators of the therapeutic actions of this ancient technique. More recently, several classes of molecules, such as neurotransmitters, cytokines and growth factors, have also been identified as possible mediators for specific acupuncture effects. This review will focus on the links between acupuncture and a class of growth factors known as neurotrophins (NTs), which are the main mediators of neural activity, plasticity and repair following neurodegeneration and/or traumatic injury. A special emphasis will be placed on the work of our laboratory investigating the role of nerve growth factor (NGF), the prototypical member of the neurotrophin family, as a mediator of acupuncture effects in the central nervous system (CNS) and as a modulator of sensory and autonomic activity.

~0 Citings

2818. Integrated traditional Chinese and Western medicine versus Western medicine in treatment of arteriosclerosis obliterans: a systematic review of randomized controlled trials
By You Xue-Mei; Qin Xiao; Dong Zhi-Yong; Wang Guan-Liang
From Zhong xi yi jie he xue bao = Journal of Chinese integrative medicine (2010), 8(10), 917-27, Language: Chinese, Database: MEDLINE

BACKGROUND: The conventional therapy for arteriosclerosis obliterans (ASO) is Western medicine. However, it has some adverse effects and does not respond to some patients, and it is also very expensive. OBJECTIVE: To evaluate the efficacy of integrated traditional Chinese (TCM) and Western medicine (WM) in treatment of ASO. Search strategy: Electronic and manual searches were conducted and the searches ended on May 20, 2009. Inclusion criteria: We included randomized controlled trials (RCT) evaluating integrated TCM and WM (as treatment group) versus WM used alone (as control group), and no language limits were set. Data extraction and analysis: Selection of trials for inclusion, assessment for methodological quality, data extraction and data syntheses were conducted according to protocol of a Cochrane systematic review by the authors. RESULTS: Thirteen RCT were included, which encompassed a total of 968 patients. The results showed that all of the 13 included trials did not report mortality rate of ASO. The studies displayed that the amputation rate in the treatment group was lower than that in the control group, but there was no statistical significance. Ten studies adopted inefficiency analysis and 2 of them showed that the ineffective rate in the treatment group was lower than that in the control group, and the relative risk (RR) and 95% CI were 0.36 [0.13, 0.99]. We performed descriptive analysis on other 8 studies; analyses of secondary outcomes such as intermittent claudication, ankle brachial index, high-density lipoprotein (HDL), and low-density lipoprotein (LDL) showed that integrated TCM and WM therapy was more effective than WM treatment alone; one study showed that WM was better than integrated TCM and WM therapy in decreasing the content of fibrinogen. All of the included trials did not report any critical adverse reactions occurred in the treatment group. CONCLUSION: The current evidence shows that integrated TCM and WM therapy is safe and effective in treating ASO, and tends to reduce amputation rate, improve intermittent claudication, decrease the levels of fibrinogen, HDL and LDL, and increase ankle brachial index, without obvious adverse reactions. Due to the low methodological quality of trials included, more prospective, multicenter, large-scale, high-quality RCTs are needed.

~0 Citings

2819. Methodology study of classification algorithm in traditional Chinese medicine syndrome study
By Zhou Min; Chu Na; Li Jie
From Zhong xi yi jie he xue bao = Journal of Chinese integrative medicine (2010), 8(10), 911-6, Language: Chinese, Database: MEDLINE
Study of traditional Chinese medicine (TCM) syndromes is a key to the research of TCM modernization, and the core is the classification and diagnostic criteria of syndromes. The purpose of this article is to review the usage of classification algorithms of data mining in TCM syndrome researches, and comprehensively analyze the main features of algorithms and their applications. The appropriate classification algorithm should be chosen according to different research purposes. Rough sets and cluster analysis are suitable for exploratory research without requiring a prior knowledge. Fuzzy sets theory, neural networks and decision tree are suitable for syndrome diagnostic criteria research when the classification goal is clear, because they require a prior knowledge. Among them, fuzzy sets theory could be used in combination with other classification algorithms. Thus, some new methods such as fuzzy clustering, fuzzy rough sets or fuzzy decision tree might be more suitable for TCM algorithm classification research. It is suggested that some novel classification algorithms need to be developed to fit the condition of TCM syndrome, based on the interdisciplinary theories and technologies.

2820. Placebo control and clinical trial of Chinese medicine

By Wu Jing
From Zhong yi jie he xue bao = Journal of Chinese integrative medicine (2010), 8(10), 906-10, Language: Chinese, Database: MEDLINE

World Health Organization aims to develop safe, effective and practical traditional medicine. Traditional Chinese medicine (TCM) and other complementary and alternative medicine are being recognized in the whole world nowadays. However, the definite effect of Chinese medicine is still in need of scientific research proof. Placebo control is of equal importance to active control and blank control in clinical trial of TCM. This article briefly reviewed the importance of placebo control and commented on its present situation in clinical trial of TCM. This article also brought up the preliminary proposals of placebo application in TCM clinical trial. We should emphasize scientific placebo preparation and good design of placebo-controlled trial, which are directed by International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use. A good clinical trial project will avoid unnecessary wastes and provide safe and effective treatment for people.

2821. Review of prevention and treatment on influenza A (H1N1) with traditional Chinese medicine

By Ji Chengdong; Zhang Ruiju; Liu Jiudong; Wang Lei
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2010), 35(14), 1900-3, Language: Chinese, Database: MEDLINE

The influenza A (H1N1) broke out in Mexico and the USA in March 2009, which soon spread over the world in coming months. This paper comprehensively analyzed the work of prevention and treatment to Influenza A (H1N1) by using traditional Chinese medicine in recent years, and briefly introduced the research of Influenza A (H1N1), specially summarized the possibility of using theory of TCM for predicting epidemic disease and the relationship between traditional Chinese medicine and influenza A (H1N1). Meanwhile some suggestions are made on the future work of prevention and treatment to Influenza A (H1N1) by using traditional Chinese medicine.

2822. Survey of current studies of effects of traditional Chinese medicine on nerve growth factor and diabetic peripheral neuropathy

By Wu Qunli; Liang Xiaochun

Nerve growth factor (NGF) is closely related to the occurrence and development of diabetic peripheral neuropathy (DPN). Traditional Chinese medicine has certain effects on the promotion of NGF expression. It analyzes the relationship of NGF and DPN and the effects of Traditional Chinese Medicine on them as well as the existing problems and looks into the future research in this domain.
2823. Progressive studies on effects of traditional Chinese medicines on differentiation of human bone mesenchymal stem cells

By Pan Min; Li Malin

Bone marrow mesenchymal stem cells (BMSC) are a group of cells with the capability of self-renewal and potential of multilineage differentiation. It was reported that some traditional Chinese medicines and their extract have the potential to induce BMSC differentiate into multiple cells. For example, notoginsenosides can induce BMSC differentiate into neurons and myocytes, naringin can induce BMSC differentiate into osteoblast, youguiyin-containing rabbit serum can induce BMSC differentiate into chondrocyte. This article reviews some progresses of this area in recent years.

~0 Citings

2824. Strategies of the study on herb genome program

By Chen Shi-lin; Sun Yong-zhen; Xu Jiang; Luo Hong-mei; Sun Chao; He Liu; Cheng Xiang-lin; Zhang Bo-li; Xiao Peigen
From Yao xue xue bao = Acta pharmaceutica Sinica (2010), 45(7), 807-12, Language: Chinese, Database: MEDLINE

Herb Genome Program (HerbGP) includes a series of projects on whole genome sequencing (WGS) and post-genomics research of medicinal plants with unique secondary metabolism pathways or/and those of great medical and pharmaceutical importance. In this paper, we systematically discussed the strategy of HerbGP, from species selection, whole-genome sequencing, assembly and bioinformatics analysis, to postgenomics research. HerbGP will push study on Chinese traditional medicines into the front field of life science, by selecting a series of plants with unique secondary metabolism pathways as models and introducing "omics" methods into the research of these medicinal plants. HerbGP will provide great opportunities for China to be the leader in the basic research field of traditional Chinese medicine. HerbGP shall also have significant impacts on the R&D of natural medicines and the development of medicinal farming by analysis of secondary metabolic pathways and selection of cultivars with good agricultural traits.

~0 Citings

2825. Traditional Chinese Medicine herbs for stopping bleeding from haemorrhoids

By Gan Tao; Liu Yue-Dong; Wang Yiping; Yang Jinlin
From Cochrane database of systematic reviews (Online) (2010), (10), CD006791, Language: English, Database: MEDLINE
BACKGROUND: Haemorrhoids is a common perianal disease, which often causes haematochezia. Besides a surgical operation or minimally invasive treatment, a variety of traditional Chinese medicinal herbs (TCMHs) have been used to treat bleeding haemorrhoids. OBJECTIVES: To assess the effectiveness of traditional Chinese medicinal herbs for stopping bleeding from haemorrhoids and the adverse effects caused by these herbs. SEARCH STRATEGY: We searched the Cochrane Colorectal Cancer Group Trials Register, Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library), MEDLINE, EMBASE, CMCD (Chinese Medicine Conference Disc) and CBMD (Chinese Bio-Medicine Disc). SELECTION CRITERIA: All randomised clinical trials (RCTs) of Chinese herbal medicines for bleeding haemorrhoids were included. DATA COLLECTION AND ANALYSIS: Two authors independently extracted the data, which were analysed using RevMan 5.0 software. We estimated the relative risk for dichotomous data and calculated the weighted mean difference for continuous data. MAIN RESULTS: Nine trials involving 1822 patients with bleeding haemorrhoids were identified. The included trials were generally not of high quality and used one TCMH preparation compared with another TCMH preparation (Type I) (five trials) or western medicines (Type II) (four trials). We could not pool the data to perform a meta-analysis as only two of the included trials used the same intervention or comparison. In the nine trials, TCMHs showed a statistically significant difference for the improvement in the general curative effects or total grade of symptoms in six trials (P < 0.05; P < 0.01), of haematochezia in three trials (P < 0.05; P < 0.001), and of inflammation of perianal mucosa in one trial (P < 0.05). The adverse effects reported were not serious and were scarce. AUTHORS' CONCLUSIONS: This review did not provide strong evidence concerning the effectiveness of TCMHs for stopping bleeding from haemorrhoids. Most of the included studies were of low quality and there was a scarcity of eligible trials and numbers of participants. Limited, weak evidence showed that some herbal formulae, when including Radix Sanguisorbae, Radix Rehmanniae, Fructus Sophorae, Radix Angelicae Sinensis, Radix Scutellariae, etc., may alleviate some symptoms caused by haemorrhoids. These include haematochezia, congestive haemorrhoidal cushions and inflammation of perianal mucosa in the short term. Well-designed clinical trials are required urgently before any confident conclusions can be drawn about the value of TCMHs for stopping bleeding from haemorrhoids. At present, the evidence is not enough that clinical practice should be changed immediately on the basis of these results.

~0 Citings

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2826. Interventions for bullous pemphigoid

By Kirtschig Gudula; Middleton Philippa; Bennett Cathy; Murrell Dedee F; Wojnarowska Fenella; Khumalo Nonhlanhla P
From Cochrane database of systematic reviews (Online) (2010), (10), CD002292, Language: English. Database: MEDLINE

BACKGROUND: Bullous pemphigoid (BP) is the most common autoimmune blistering disease in the West. Oral steroids are the standard treatment. This is an update of the review published in 2005. OBJECTIVES: To assess treatments for bullous pemphigoid. SEARCH STRATEGY: In August 2010 we updated our searches of the Cochrane Skin Group Specialised Register, the Cochrane Central Register of Controlled Trials (Clinical Trials), MEDLINE, EMBASE, and the Ongoing Trials registers. SELECTION CRITERIA: Randomised controlled trials of treatments for participants with immunofluorescence-confirmed bullous pemphigoid. DATA COLLECTION AND ANALYSIS: At least two authors evaluated the studies for the inclusion criteria, and extracted data independently. MAIN RESULTS: We included 10 randomised controlled trials (with a total of 1049 participants) of moderate to high risk of bias. All studies involved different comparisons, none had a placebo group. In 1 trial plasma exchange plus prednisone gave significantly better disease control at 1 month (0.3 mg/kg: RR 18.78, 95% CI 1.20 to 293.70) than prednisone alone (1.0 mg/kg: RR 1.79, 95% CI 1.11 to 2.90), while another trial showed no difference in disease control at 6 months. No differences in disease control were seen for different doses or formulations of prednisolone (one trial each), for azathioprine plus prednisone compared with prednisone alone (one trial), for prednisolone plus azathioprine compared with prednisolone plus placebo exchange (one trial), for prednisolone plus mycophenolate mofetil or plus azathioprine (one trial), for tetracycline plus nicotinamide compared with prednisolone (one trial). Chinese traditional medicin plus prednisone was not effective in one trial. There were no significant differences in healing in a comparison of a standard regimen of topical steroids (clobetasol) with a milder regimen (RR 1.00, 95% 0.97 to 1.03) in one trial. In another trial, clobetasol showed significantly more disease control than oral prednisolone in people with extensive and moderate disease (RR 1.09, 95% CI 1.02 to 1.17), with significantly reduced mortality and adverse events (RR 1.06, 95% CI 1.00 to 1.12). AUTHORS’ CONCLUSIONS: Very potent topical steroids are effective and safe treatments for BP, but their use in extensive disease may be limited by side-effects and practical factors. Milder regimens (using lower doses of steroids) are safe and effective in moderate BP. Starting doses of prednisolone greater than 0.75 mg/kg/day do not give additional benefit, lower doses may be adequate to control disease and reduce the incidence and severity of adverse reactions. The effectiveness of adding plasma exchange, azathioprine or mycophenolate mofetil to corticosteroids, and combination treatment with tetracycline and nicotinamide needs further investigation.

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2827. Progress in diabetes research in China

By Ning Guang; Hong Jie; Bi Yufang; Gu Weiqiong; Zhang Yifei; Zhang Zhiguo; Huang Yun; Wang Weiqing; Li Xiaoying


The prevalence of diabetes, especially Type 2 diabetes mellitus (T2DM), is increasing markedly throughout the world, including in China. Because T2DM and its complications are associated with considerable socioeconomic burden and mortality, there is increasing interest in developing strategies to prevent or delay progression of the disease. In recent decades, many researchers have focused on the mechanism of onset of diabetes, as well as examining the benefits of various interventions in subjects with different glucose tolerance status to prevent or delay development of the disease. In the present article, we focus on five areas (epidemiology, early intervention, insulin sensitivity and β-cell function, adipocytokines, and traditional Chinese medicine) to review the progress of research into diabetes in China today. The prevalence of diabetes in China is one of the highest in the world. However, with lifestyle interventions and appropriate pharmacological therapies (including traditional Chinese medicine), T2DM may be prevented, well controlled, or even put into remission. Accurate estimation of insulin secretion and insulin sensitivity, as well as better characterization of the physiological function of adipocytokines, could give us a better understanding of the basic mechanisms underlying the onset of diabetes and could lead to better interventions in people with impaired glucose tolerance and T2DM.

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2828. Advances in past five years in study on traditional Chinese medicine against fungi

By Wang Changzhong; Wnag Longhai


Prevalence of fungal infection increased rapidly in recent years. The organisms developed resistance to conventional antifungal agents such as azoles and polyenes, while the traditional Chinese medicine (TCM) showed certain advantages in the fight against fungal infections. This paper reviewed the latest research progress of TCM against common pathogenic fungi such as Candida albicans, Dermatophytes, Aspergillus, Malassezia, Fusarium oxysporum fungus, Sporothrix schenckii, Cryptococcus neoformans, and fungal biofilm.

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2829. Scientific basis for the use of Indian ayurvedic medicinal plants in the treatment of neurodegenerative disorders: ashwagandha

By Ven Murthy M R; Ranjekar Prabhakar K; Ramassamy Charles; Deshpande Manasi

From Central nervous system agents in medicinal chemistry (2010), 10(3), 238-46, Language: English, Database: MEDLINE

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Ayurveda is a Sanskrit word, which means "the scripture for longevity". It represents an ancient system of traditional medicine prevalent in India and in several other south Asian countries. It is based on a holistic view of treatment which is believed to cure human diseases through establishment of equilibrium in the different elements of human life, the body, the mind, the intellect and the soul [1]. Ayurveda dates back to the period of the Indus Valley civilization (about 3000 B.C) and has been passed on through generations of oral tradition, like the other four sacred texts (Rigveda, Yajurveda, Samaveda and Atharvanaveda) which were composed between 12(th) and 7(th) century B.C [2, 3]. References to the herbal medicines of Ayurveda are found in all of the other four Vedas, suggesting that Ayurveda predates the other Vedas by at least several centuries. It was already in full practice at the time of Buddha (6(th) century B.C) and had produced two of the greatest physicians of ancient India, Charaka and Shushrutha who composed the basic texts of their trade, the Samhitas. By this time, ayurveda had already developed eight different subspecialties of medical treatment, named Ashtanga, which included surgery, internal medicine, ENT, pediatrics, toxicology, health and longevity, and spiritual healing [4]. Ayurvedic medicine was mainly composed of herbal preparations which were occasionally combined with different levels of other compounds, as supplements [5]. In the Ayurvedic system, the herbs used for medicinal purposes are classed as brain tonics or rejuvenators. Among the plants most often used in Ayurveda are, in the descending order of importance: (a) Ashwagandha, (b) Brahmi, (c) Jatamansi, (d) Jyotishmati, (e) Mandukparni, (f) Shankhapushpi, and (g) Vacha. The general appearance of these seven plants is shown in Fig.1. Their corresponding Latin names, as employed in current scientific literature, the botanical families that each of them belongs to, their normal habitats in different areas of the world, as well as the common synonyms by which they are known, are shown in the Table 1. The scientific investigations concerning the best known and most scientifically investigated of these herbs, Ashwagandha will be discussed in detail in this review. Ashwagandha (Withania somnifera, WS), also commonly known, in different parts of the world, as Indian ginseng, Winter cherry, Ajagandha, Kanaje Hindi and Samm Al Ferakh, is a plant belonging to the Solanaceae family. It is also known in different linguistic areas in India by its local vernacular names [6]. It grows prolifically in dry regions of South Asia, Central Asia and Africa, particularly in India, Pakistan, Bangladesh, Sri Lanka, Afghanistan, South Africa, Egypt, Morocco, Congo and Jordan [7]. In India, it is cultivated, on a commercial scale, in the states of Madhya Pradesh, Uttar Pradesh, Punjab, Gujarat and Rajasthan [6]. In Sanskrit, ashwagandha, the Indian name for WS, means "odor of the horse", probably originating from the odor of its root which resembles that of a sweaty horse. The name"somnifera" in Latin means "sleep-inducer" which probably refers to its extensive use as a remedy against stress from a variety of daily chores. Some herbalists refer to ashwagandha as Indian ginseng, since it is used in India, in a way similar to how ginseng is used in traditional Chinese medicine to treat a large variety of human diseases [8]. Ashwagandha is a shrub whose various parts (berries, leaves and roots) have been used by Ayurvedic practitioners as folk remedies, or as aphrodisiacs and diuretics. The fresh roots are sometimes boiled in milk, in order to leach out undesirable constituents. The berries are sometimes used as a substitute to coagulate milk in cheese making. In Ayurveda, the herbal preparation is referred to as a "rasayana", an elixir that works, in a nonspecific, global fashion, to increase human health and longevity. It is also considered an adaptogen, a nontoxic medication that normalizes physiological functions, disturbed by chronic stress, through correction of imbalances in the neuroendocrine and immune systems [9, 10]. The scientific research that has been carried out on Ashwagandha and other ayurvedic herbal medicines may be classified into three major categories, taking into consideration the endogenous or exogenous phenomena that are known to cause physiological disequilibrium leading to the pathological state; (A) pharmacological and therapeutic effects of extracts, purified compounds or multi-herbal mixtures on specific non-neurological diseases; (B) pharmacological and therapeutic effects of extracts, purified compounds or multi-herbal mixtures on neurodegenerative disorders; and (C) biochemical, physiological and genetic studies on the herbal plants themselves, in order to distinguish between those originating from different habitats, or to improve the known medicinal quality of the indigenous plant. Some of the major points on its use in the treatment of neurodegenerative disorders are described below.

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2830. Berberine: a potential phytochemical with multispectrum therapeutic activities

By Vuddanda Parameswara Rao; Chakraborty Subhashis; Singh Sanjay
From Expert opinion on investigational drugs (2010), 19(10), 1297-307, Language: English, Database: MEDLINE
IMPORTANCE OF THE FIELD: The use of traditional medicines of natural origin is being encouraged for the treatment of chronic disorders, as synthetic drugs in such cases may cause unpredictable adverse effects. Berberine, a traditional plant alkaloid, is used in Ayurvedic and Chinese medicine for its antimicrobial and antiprotozoal properties. Interestingly, current clinical research on berberine has revealed its various pharmacological properties and multispectrum therapeutic applications. AREAS COVERED IN THIS REVIEW: An extensive search in three electronic databases (Unbound Medline, PubMed and ScienceDirect) and internet search engines (Scirus and Google Scholar) were used to identify the clinical studies on berberine, without any time constraints. This review elaborates the recent studies which reveal that with time, the drug has evolved with superior therapeutic activities. In addition, this review will also attract the attention of formulation scientists towards the issues and challenges associated in its drug delivery and the probable approaches that may be explored to help patients reap the maximum benefit of this potentially useful drug. WHAT THE READER WILL GAIN: A relatively large number of studies discussed here have revealed the possible areas where this phytochemical constituent can exhibit its therapeutic activities in the treatment of chronic ailments or diseases including diabetes, cancer, depression, hypertension and hypercholesterolemia. TAKE HOME MESSAGE: The potential of the drug remains to be harvested by designing a suitable formulation that could overcome its inherent low bioavailability.

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2831. Advanced achievements about neuroprotective mechanisms of paeoniflorin
By Zhu Yefang; Dang Shanshan; Hua Ziyu

Paeoniflorin is one of the bioactive components of Paeonia lactiflora, a traditional Chinese herbal medicine. Some recent studies prove its distinguished neuroprotective effect. These neuroprotective mechanisms have become hot points and show closely correlated to activating adenosine A1 receptor, ameliorating the function of cholinergic nerve, regulating ion channel homeostasis, retarding oxidative stress and apoptosis of the neurocytes, promoting nerve growth, having an influence on astrocytes and being able to penetrate through blood brain barrier. In this review, we present the neuroprotective mechanisms of paeoniflorin in the following eight aspects.

~0 Citings

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2832. Sublingual immunotherapy for food allergy
By Enrique Ernesto
From Arbeiten aus dem Paul-Ehrlich-Institut (Bundesinstitut fur Impfstoffe und biomedizinische Arzneimittel) Langen/Hessen (2009), 96329-36; discussion 337, Language: English, Database: MEDLINE

~0 Citings

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2833. Therapeutic drug monitoring in highly active antiretroviral therapy
By Liu Xia; Ma Qing; Zhang Fujie
IMPORTANCE OF THE FIELD: Despite the efficacy of combination antiretroviral therapy (ART), a large proportion of patients living with HIV/AIDS on ART does not achieve or maintain adequate virological suppression. Therapeutic drug monitoring (TDM) has been utilised to improve treatment outcomes of ART. AREAS COVERED IN THE REVIEW: The potential incorporation of TDM into the clinical HIV management is supported by the existing relationship between drug exposure and efficacy/toxicity, the high inter-patient variability pharmacokinetics, and the accurate, specific and rapid method for drug level determination. The current status of TDM in ART is reviewed in this article with discussions on its feasibility, potential use and limitations. WHAT THE READER WILL GAIN: Mounting evidence from clinical trials has indicated the potential use of TDM in reducing the rates of treatment failure and adverse effect, avoiding the drug interactions, and special populations, such as children, pregnant women and patients with co-infections. TDM may play an important role even in resource-limited settings, to safeguard expanded use of bioequivalent generic antiretroviral drugs and avoid drug interactions with traditional Chinese medicines. TAKE HOME MESSAGE: TDM is still in the centre of controversy in that several critical issues need to be addressed, such as limited adherence assessment, inappropriate response predictors, insufficient validation of target concentration windows and lack of the quality control of assay. The utility of TDM will remain experimental until more data are obtained from large clinical trials showing the benefit of TDM.

~3 Citings

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2834. Current situation, problem analyses and its countermeasure of formulae of traditional Chinese medicine (FTCM) preventing and curing tumor angiogenesis

By Xi Shengyan; Wang Yanhui; Zhao Yufang; Lu Dawei; Li Pengcheng; Zhang Qian
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2010), 35(10), 1352-6, Language: Chinese, Database: MEDLINE

Malignant tumor is the common disease that threaten severely to people's health. Formulae of traditional Chinese medicine (FTCM), as the major component of traditional drugs, has played more important role on the prevention and cure to tumor. The Folkman's theory that tumorous growth depends on tumor neovascularization has been confirmed so many years, so to inhibit the tumor angiogenesis, is an important path to treat tumor. The research of FTCM to antagonizing tumor angiogenesis in our country has been started more lately. Since it has been reported some FTCMs can inhibit angiogenesis, and it also exists many problems. The article summarized the correlated research of FTCM to antagonize tumor angiogenesis for the past several years, and according this, analyzed, stated and commented to the problems, countermeasures, development and direction of PTCM to antagonize tumor angiogenesis.

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2835. Advances in studies of renal adverse reactions of Leonurus heterophyllus

By Yu Jie; Wang Jing; Zhao Ronghua; Bao Zhaorigetu; Cai Shaoqing
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2010), 35(9), 1213-6, Language: Chinese, Database: MEDLINE

Motherwort (Herb of Leonurus heterophyllus) was a traditional Chinese medicine used for the treatment of various kinds of gynaecological diseases, which was considered as non-toxic medicine since ancient times. However, adverse effects such as kidney damage, uterus damage, allergy and diarrhea were frequently reported recently. This paper reviews the possible target site, toxic dosage, chemical substance and other related factors of these kidney damage caused by motherwort from both the clinic and animal experiment view.

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2836. Common pancreatic disease

By Leung Po Sing
From Advances in experimental medicine and biology (2010), 69029-51, Language: English, Database: MEDLINE

~0 Citings
2837. Progress on integrated Chinese and Western medicine in the treatment of osteoarthritis

By Wang He-ming; Liu Jun-ning; Zhao Yi

From Chinese journal of integrative medicine (2010), 16(4), 378-84, Language: English, Database: MEDLINE

Osteoarthritis (OA) is a chronic degenerative disease of the joints caused by wide variety of factors. This paper provides a review of the clinical and experimental research on integrated Chinese and Western medicine in the treatment of osteoarthritis. Western medicine therapies were used including physiotherapy, medications, acupuncture, functional training, intra-articular injection of sodium hyaluronate therapy, and arthroscopic debridement with Chinese medicine arthritic iontophoresis therapy. Articular iontophoresis therapy. (2) Experimental research: modern methods were used in studying the mechanism of Chinese medicine in slowing down cartilage degeneration, promoting articular cartilage repair, inhibiting synovial inflammation, and blocking cartilage destruction. In addition, this article also reviews the advantages, prospects, and problems of the therapies. and problems of the therapies.

~0 Citings

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2838. The languages of healing: linked by a common thread

By Dorsher Peter T

From Journal of alternative and complementary medicine (New York, N.Y.) (2010), 16(8), 907-13, Language: English, Database: MEDLINE

Though separated by different millennia, languages, levels of scientific advancement, and views of human physiology, both prehistoric and modern cultures have expressed concepts of evaluating and treating human illness that have remarkable overlap with those of Traditional Chinese Medicine (TCM). These similarities suggest these healing traditions likely are expressing a common, fundamental aspect of human anatomy and/or physiology. Prehistoric, ancient Egyptian, TCM, Mayan, myofascial pain, and myofascial meridian concepts of health and healing are discussed. Anatomical, clinical, and physiologic evidence is presented that suggests neuroanatomy is likely the common thread that unites these ancient and modern healing concepts. These findings should lead to an increased understanding of the anatomical and physiologic substrates of the beneficial clinical effects of acupuncture in treating pain and visceral disorders. This, in turn, should lead to novel, safer treatment techniques that combine modern technologies with ancient clinical acumen.

~0 Citings

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2839. Current progress of Chinese medicinal treatment of endometriosis

By Jiang Han; Shen Yan; Wang Xiang-Gui

From Chinese journal of integrative medicine (2010), 16(3), 283-8, Language: English, Database: MEDLINE

Endometriosis (EM) is one of the common and frequently encountered gynecological diseases that seriously influences women's health. Its morbidity reaches 10%-15% in women at reproductive ages, and shows an evident rising tendency. In recent years, the Chinese medicine treatment of EM has won favorable therapeutic effects with few adverse reactions. A brief review on this topic has been made through analyzing and summarizing recent pertinent literatures in terms of treatment depending on syndrome differentiation, cycle treatment, external treatment, integrative medicinal treatment, so as to try to know the status quo of Chinese medicine treatment on EM, and to provide some instructive views for clinical treatment and research.

~1 Citing

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2840. The role of traditional Chinese herbal medicines in cancer therapy--from TCM theory to mechanistic insights

By Hsiao W L Wendy; Liu Liang

From Planta medica (2010), 76(11), 1118-31, Language: English, Database: MEDLINE
Traditional Chinese medicine-based herbal medicines have gained increasing acceptance worldwide in recent years and are being pursued by pharmaceutical companies as rich resources for drug discovery. For many years, traditional Chinese medicines (TCM) have been applied for the treatment of cancers in China and beyond. Herbal medicines are generally low in cost, plentiful, and show very little toxicity or side effects in clinical practice. However, despite the vast interest and ever-increasing demand, the absence of strong evidence-based research and the lack of standardization of the herbal products are the main obstacles toward the globalization of TCM. In recent years, TCM research has greatly accelerated with the advancement of analytical technologies and methodologies. This review of TCM specifically used in the treatment of cancer is divided into two parts. Part one provides an overview of the philosophy, approaches and progress in TCM-based cancer therapy. Part two summarizes the current understanding of how TCM-derived compounds function as anticancer drugs.

2841. Scientific evidence on the supportive cancer care with Chinese medicine
By Cho William C S

Complementary and alternative medicine has been increasingly utilized by cancer patients in developed countries. Among the various forms of complementary and alternative medicine, Traditional Chinese Medicine is one of the few that has a well constructed theoretical framework and established treatment approaches for diseases including cancer. Recent research has revealed growing evidence suggesting that Traditional Chinese Medicine is effective in the supportive care of cancer patients during and after major conventional cancer treatments. This paper succinctly summarizes some published clinical evidence and meta-analyses which support the usage of various Traditional Chinese Medicine treatment strategies including Chinese herbal medicine, acupuncture and Qigong in supportive cancer care.

2842. Meridian studies in China: a systematic review
By Wang Guang-Jun; Ayati M Hossein; Zhang Wei-Bo
From Journal of acupuncture and meridian studies (2010), 3(1), 1-9, Language: English, Database: MEDLINE

Meridian theory is a major part of Chinese medicine and has guided acupuncture and clinical practice for thousands of years. Meridian theory describes many important concepts about the rules of human body function and regulation, but has comparatively huge differences with the basic concepts of modern medicine. These differences have caused deep concern and attracted attention from scholars, both inside and outside of China. The interest in meridian theory lies in determining the structural nature of meridians. Not only is this information still unclear, it is very difficult to achieve clear results in a short period of time. Despite this, the phenomena of meridians can be used as the entry point for meridian studies. After many years of effort, although the physical structure of meridians has not been found, the existence of the meridian phenomena has been fully confirmed. Although there is a lack of morphological evidence for the existence of the meridian, concluding non-existence may be incorrect as morphology techniques develop and structures previously not determined are being found. Since the phenomenon of meridians exists, some biological basis behind its occurrence must be present. This implies that research on meridians needs to continue as research techniques advance and may eventually reveal the biological basis of the meridian phenomenon. In the present review, we analyze the history of meridian studies in China.

2843. Research and development of antischistosomal drugs in the People's Republic of China a 60-year review
By Xiao Shu-Hua; Keiser Jennifer; Chen Ming-Gang; Tanner Marcel; Utzinger Jurg
From Advances in parasitology (2010), 73231-95, Language: English, Database: MEDLINE
A comprehensive 60-year review of antischistosomal drug discovery and development research in the People's Republic of China (P.R. China) is presented. In the 1950s, three antimonials were developed, which, compared to potassium antimony tartrate—the treatment of choice against schistosomiasis at the time—showed equal efficacy but lower toxicity when administered orally or intramuscularly. Activity of furapromidum against Schistosoma japonicum was reported in the early 1960s, and this drug became the first non-antimonial used in clinical treatment of schistosomiasis japonica. Subsequently, two additional nitrofuran derivatives (furadamine and fuvinazole) were investigated in the laboratory and clinically. In the late 1960s, niridazole and amoscanate were developed by western scientists, which encouraged Chinese researchers to synthesise and further modify the chemical structures of these compounds. However, the modified compounds were less efficacious but similarly toxic, which impeded their further development. The advent of the safe, highly efficacious broad-spectrum antischistosomal drug praziquantel, in the mid-1970s, eventually resulted in a change of the global schistosomiasis control strategy from a multi-pronged transmission control approach to drug-based morbidity control. Numerous studies were carried out in P.R. China to further the understanding of efficacy, mechanism of action and safety of praziquantel against S. japonicum. Efforts have also been made to develop antischistosomal drugs from Chinese traditional medicine, and research with cucurbitin (an amino acid isolated from pumpkin seeds), among other products, showed interesting in vitro and in vivo activities against S. japonicum. In the 1990s, the artemisinins—originally reserved for malaria treatment—were developed as 'chemoprophylactic' agents against S. japonicum, which in turn led to a series of new developments of artemisinins and related compounds as broad-spectrum antischistosomal and anthelminthic therapies.

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2844. Acupuncture in modern society

By Vanderploeg Kristin; Yi Xiaobin
From Journal of acupuncture and meridian studies (2009), 2(1), 26-33, Language: English, Database: MEDLINE

For at least 2,500 years, acupuncture has been an integral part of traditional Chinese medicine. However, recently as more people in western countries are diagnosed with chronic disease poorly treated with modern medical therapies, many are turning to acupuncture and other forms of alternative medical treatments. Based on the theory of harmonious flowing qi being the basis of good health, acupuncture focuses on restoring qi by manipulation of the complementary and opposing elements of yin and yang. However, in the modern medical community we struggle to with the concept of qi, given a lack of anatomic and histological evidence supporting its existence. However, with the surge in public interest in acupuncture, the scientific community begun heavy investigation of acupuncture's efficacy, as well as the physiologic basis behind it. Thus far, evidence supports the use of acupuncture in post-operative nausea and vomiting, postoperative dental pain, chronic pain conditions such as lower back pain, and possibly also such psychologic conditions as addiction. It is possible that by affecting afferent nerve signaling, acupuncture may influence the release of endogenous opioids to promote pain relief. This effect may be augmented by release of ACTH and cortisol, as well as through down-regulation of signaling through pain fibers. When treating patients who may utilize alternative forms of medicine, it is important that medical practitioners be educated in regards to the basic fundamental beliefs behind acupuncture, as well as the scientific evidence supporting its use and revealing its efficacy. The purpose of this review is to give western trained physicians exposure to history, basic knowledge and its clinical applications of acupuncture to accommodate accelerating interests in acupuncture in modern society.

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2845. Curculigo orchioides: the black gold with numerous health benefits

By Chauhan Nagendra Singh; Sharma Vikas; Thakur Mayank; Dixit Vinod Kumar
From Zhong xi yi jie he xue bao = Journal of Chinese integrative medicine (2010), 8(7), 613-23, Language: English, Database: MEDLINE

Curculigo orchioides Gaertn. (family Amaryllidaceae) is an endangered rasayana herb which is popularly known as “Kali Musli”. The plant is native to India, and holds a special position as a potent adaptogen and aphrodisiac in Ayurvedic system of medicine. It is an important ingredient of many Ayurvedic preparations and is considered to have aphrodisiac, immunostimulant, hepatoprotective, antioxidant, anticancer and antidiabetic activities. Various chemical constituents like mucilage, phenolic glycosides, saponins and aliphatic compounds from the plant have been reported. The plant is also considered as an important component of various herbal preparations of the Chinese and Kampo medicine. The present review is an attempt to enumerate various biologically tested activities and evaluation of different phytochemicals present in this important medicinal plant.

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2846. Treating gynaecological disorders with traditional Chinese medicine: a review
By Zhou Jue; Qu Fan

Traditional Chinese Medicine (TCM) has significant advantages in treating gynaecological disorders. The paper has provided a brief introduction on the current progress of treating some gynaecological disorders including endometriosis, infertility, dysmenorrhea, abnormal uterine bleeding, premenstrual syndrome, menopausal syndrome, uterine fibroids, chronic pelvic inflammation, polycystic ovarian syndrome (PCOS), cervicitis and vaginitis with Chinese Herbal Medicine (CHM) and acupuncture. The use of TCM in the field of assisted reproductive techniques (ART) has also been included in the review. In addition, thirty-two commonly used Chinese medicinal formulas in treating gynaecological disorders have been introduced.

~0 Citings

2847. An overview of 45 published database resources for complementary and alternative medicine
By Boehm Katja; Raak Christa; Vollmar Horst Christian; Ostermann Thomas
From Health information and libraries journal (2010), 27(2), 93-105, Language: English, Database: MEDLINE

BACKGROUND: Complementary and alternative medicine (CAM) has succeeded to implement itself in the academic context of universities. In order to get information on CAM, clinicians, researchers and healthcare professionals as well as the lay public are increasingly turning to online portals and databases, which disseminate relevant resources. One specific type of online information retrieval systems, namely the database, is being reviewed in this article.

QUESTION: This overview aims at systematically retrieving and describing all databases covering the field of CAM. One of the requirements for inclusion was that the database would also have to be published in a medical journal.

DATA SOURCES: The databases AMED, CAMbase, EMBASE, and MEDLINE/PubMed were searched between December 2008 and December 2009 for publications relevant to CAM databases. The authors' specialist library was also searched for grey literature to be included.

STUDY SELECTION: All included databases were then visited online and information on the context, structure and volume of the database was extracted.

MAIN RESULTS: Forty-five databases were included in this overview. Databases covered herbal therapies (n = 11), traditional Chinese medicine (n = 9) and some dealt with a vast number of CAM modalities (n = 9), amongst others. The amount of time the databases had been in existence ranged from 4 to 53 years. Countries of origin included the USA (n = 14), UK (n = 7) and Germany (n = 6), amongst others. The main language in 42 of 45 databases was English.

CONCLUSIONS: Although this overview is quite comprehensive with respect to the field of CAM, certain CAM practices such as chiropractic, massage, reflexology, meditation or yoga may not have been covered adequately. A more detailed assessment of the quality of the included databases might give additional insights into the listed resources. The creation of a personalised meta-search engine is suggested, towards which this overview could be seen as a first step.

~1 Citing

2848. Anti-diabetic agents from natural products--an update from 2004 to 2009
By Qi Lian-Wen; Liu E-Hu; Chu Chu; Peng Yong-Bo; Cai Hai-Xia; Li Ping
From Current topics in medicinal chemistry (2010), 10(4), 434-57, Language: English, Database: MEDLINE
Diabetes mellitus (DM), the third killer of the mankind health along with cancer, cardiovascular and cerebrovascular diseases, is one of the most challenging diseases facing health care professionals today. The World Health Organization (WHO) has declared that a DM epidemic is underway. Primary DM and its complications are costly to manage, not only for affected individuals, but also for healthcare systems around the world. Screening of anti-diabetic agents has been extensively investigated in the past decades. Natural products (NPs) have served as a major source of drugs for centuries, and about half of the pharmaceuticals in use today are derived from natural substances. Many natural products especially plants-derived medicines have been recommended for the treatment of DM. The present paper reviews NPs appeared in the literature with potential for DM and also identifies the research needs in this area. It mainly covers the time period from January 2004 to October 2008. The current review is divided into three major sections based on the classification of the natural materials involved. The first part focuses on known and some new chemical entities isolated mainly from medicinal plants possessing anti-diabetic properties, including saponins, flavonoids, alkaloids, anthraquinones, terpenes, coumarins, phenolics, polysaccharides, and some other compounds. The second part summarizes crude extract of medicinal plants which are commonly used in the traditional Chinese medical system and have been demonstrated experimental or/and clinical anti-diabetic effectiveness, mainly including Leguminosae, Cucurbitaceae, Araliaceae, Liliaceae, Chenopodiaceae, Solanaceae, Compositae, Campanulaceae, Cornaceae, Rhamnaceae, Scrophulariaceae, Euphorbiaceae, Ginkgoceae, Gramineae, Myrtaceae, Sterculiaceae, Annonaceae, Labiatae, Crassulaceae, and Miscellaneous. The third part lists some compound formulae consisting of extracts of several plants that have been reported as beneficial for the treatment of DM, major involving Xiaokeling tablet, Ba-Wei-Di-Huang-Wan and Formula 1.

~1 Citing

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2849. Progresses in TCM metal-based antitumour agents

By Chen Zhen-Feng; Liang Hong


Traditional Chinese medicines (TCM) have recently been recognized as a new source of anticancer drugs and new chemotherapy adjuvant to enhance the efficacy of chemotherapy and to diminish side effects and resistance of cancer chemotherapies. At the same time, cisplatin, one of the most widely used anticancer drugs, is effective in treating a variety of cancers, especially testicular cancer for which it has a greater than 90% cure rate, but its clinical efficacy is limited by significant side effects and acquired or intrinsic resistance. Therefore, many efforts have been devoted to designing new platinum compounds with improved pharmacological properties and a broader range of antitumour activity. New strategies have been applied in the designs of antitumour coordination compounds as drugs, such as synthesizing new ligands or metal complexes with different reaction mechanisms. Among them, new coordination compounds based on traditional Chinese medicines (TCMs) provide a novel approach to potential (pro-)drugs. This review mainly focuses on the synthesis, structure, antitumour activity and interactions with molecular targets of TCM based metal complexes. TCM alkaloids, flavonoids, cantharidin, coumarins, plumbagin, curcumin and camphoric acid metal-based antitumour agents are covered. The future development of hybrid TCM-metal complexes as antitumour drugs is discussed. The pursuit of new TCM metal-based anticancer drugs and enhancement of modern TCM holds promise for overcoming multidrug resistance (MDR).

~0 Citings

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2850. Therapeutic effects of low-level laser on lateral epicondylitis from differential interventions of Chinese-Western medicine: systematic review

By Chang Wen-Dien; Wu Jih-Huah; Yang Wen-Ju; Jiang Joe-Air

BACKGROUND: Low-level laser therapy (LLLT) is a conservative treatment for lateral epicondylitis (LE), but it is also an alternative intervention between the very different approaches of Chinese and Western medicine. OBJECTIVE: The purpose of this study was to systematically review and meta-analyze the therapeutic effects of LLLT on LE. METHODS: We searched several electronic databases, including Medline, PubMed, and CINAHL, and explored studies that were randomized controlled trials on the therapeutic effects of LLLT on LE from 1990 to February 2009. These studies were systematically reviewed for the difference in therapeutic effects among various LLLTs on acupuncture points and on tender and myofascial trigger points (MTrPs). The reviewed therapeutic effects included pain, grip strength, range of motion (ROM), and weight tests, and were compared by meta-analysis. RESULTS: We selected ten articles, and in seven of them the irradiation was conducted on tender points or MTrPs in the experimental groups. In two other articles, the irradiation was conducted on acupuncture points, and the last one was conducted on both kinds of points. Only three articles provided sufficient data for meta-analysis. The results revealed that applying LLLT on tender points or MTrPs is an effective means to improve the effect size (ES) of pain release after treatment (pooled ES: 0.71, 95% CI: 0.82-approximately 0.60) and follow-up (pooled ES: 1.05, 95% CI: 1.16-approximately 0.94). LLLT application was also able to increase the grip force, ROM, and weight test (p < 0.05). CONCLUSIONS: We suggest that using LLLT on tender points or MTrPs of LE could effectively improve therapeutic effects.

~0 Citings

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2851. The treatment of menopausal symptoms by traditional East Asian medicines: review and perspectives

By Scheid Volker; Ward Trina; Cha Wung-Seok; Watanabe Kenji; Liao Xing
From Maturitas (2010), 66(2), 111-30, Language: English, Database: MEDLINE

This article provides an overview and critical evaluation of the management of menopausal symptoms by traditional East Asian medicines (TEAMs). For this purpose we utilise an interdisciplinary perspective that draws on social history, medical anthropology, and clinical research. Our goal is threefold. First, we examine the research literature regarding evidence for the effectiveness of TEAMs in the management of menopausal symptoms. The failure of all studies reviewed to address the problematic articulation between tradition and modernity in the case of menopausal syndrome leads us to examine more closely how this connection has been constructed. In the second part of this review we explain how during the late 20th century various TEAMs currents such as traditional Chinese medicine (TCM), Japanese Kampo, and Korean medicine, explored different responses to a biomedically defined disorder, namely menopause, that was until then not discussed in these traditions. Third, based on the findings of the previous sections we make a number of recommendations as to how research in this field might be improved. We argue that while robust evidence for the efficacy of TEAMs in treating menopausal symptoms is currently lacking, existing studies provide sufficient evidence to warrant further research. A new interdisciplinary research framework that takes account of the actual realities of TEAMs practice will be required however for meaningful answers regarding the two most urgent problems in the field to emerge. These are, first the issue of actual treatment effects, and second the more general problem of how TEAMs might be integrated into personalised health care.

~0 Citings

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2852. Botanicals in dermatology: an evidence-based review

By Reuter Juliane; Merfort Irmgard; Schempp Christoph M

Botanical extracts and single compounds are increasingly used in cosmetics but also in over-the-counter drugs and food supplements. The focus of the present review is on controlled clinical trials with botanicals in the treatment of acne, inflammatory skin diseases, skin infections, UV-induced skin damage, skin cancer, alopecia, vitiligo, and wounds. Studies with botanical cosmetics and drugs are discussed, as well as studies with botanical food supplements. Experimental research on botanicals was considered to a limited extent when it seemed promising for clinical use in the near future. In acne therapy, Mahonia, tea tree oil, and Saccharomyces may have the potential to become standard treatments. Mahonia, Hypericum, Glycyrrhiza and some traditional Chinese medicines appear promising for atopic dermatitis. Some plant-derived substances like dithranol and methoxsalen (8-methoxypsoralen) [in combination with UVA] are already accepted as standard treatments in psoriasis; Mahonia and Capsicum (capsaicin) are the next candidates suggested by present evidence. Oral administration and topical application of antioxidant plant extracts (green and black tea, carotenoids, coffee, and many flavonoids from fruits and vegetables) can protect skin from UV-induced erythema, early aging, and irradiation-induced cancer. Hair loss and vitiligo are also traditional fields of application for botanicals. According to the number and quality of clinical trials with botanicals, the best evidence exists for the treatment of inflammatory skin diseases, i.e., atopic dermatitis and psoriasis. However, many more controlled clinical studies are needed to determine the efficacy and risks of plant-derived products in dermatology. Safety aspects, especially related to sensitization and photodermatitis, have to be taken into account. Therefore, clinicians should not only be informed of the beneficial effects but also the specific adverse effects of botanicals used for dermatologic disorders and cosmetic purposes.
2853. Research progress of whole embryo culture tool and its application

By Han Jiayin; Liang Aihua


Whole embryo culture (WEC) is an experimental tool, which is made use of embryos in vitro to replace whole animals to investigate the growth and development of early organs, the embryo toxicity of chemical materials and the mechanism of the occurrence of embryo toxicity. Compared with experiment with whole animals, WEC could reduce the number of experimental animals, shorten experimental time, decrease experimental expenses, eliminate disturbing factors and control dosage more exactly. So it is generally received that WEC tool is a good experimental method to match the principles of replacement, reduction, refinement and responsibility. This article is a review of the WEC tool of rat and mouse, including the development of this tool, announcements, and the application in the development of organs, the embryo toxicity of environmental pollution and heavy metal, safety evaluation of medicine and the embryo toxicity of traditional Chinese medicine and its mechanism. There is also a discussion of the application of this tool in the investigation of the embryo toxicity of traditional Chinese medicine.

2854. Potential of medicinal plants in mosquito control

By Fallatah Sahar A B; Khater Emad I M

From Journal of the Egyptian Society of Parasitology (2010), 40(1), 1-26, Language: English, Database: MEDLINE

Medicinal plants have long history as important components in traditional medicine, and food of humans since ancient Egyptians and Chinese. Naturally occurring botanical compounds contain a broad range of chemical active ingredients can intervene in all biological processes of the mosquito, thus interrupt its life cycle and dispersal and reduce harms to humans and animals. Many medicinal plants were tested for their pesticide and repellent potential, as crude material, essential oils or individual active ingredients. This article reviewed studies on the efficacy of many well known and commonly used safe medicinal plants or their products in controlling the mosquitoes; Aedes aegypti, Anopheles gambiae, An. stephensi and Culex quinquefasciatus and the ticks, Dermacentor variabilis, Amblyomma americanum, Ixodes scapularis and I. ricinus. Promising and encouraging results were obtained against these arthropod-vectors of zoonotic diseases.

2855. Phytochemical informatics and virtual screening of herbs used in Chinese medicine

By Ehrman T M; Barlow D J; Hylands P J

From Current pharmaceutical design (2010), 16(15), 1785-98, Language: English, Database: MEDLINE

While many experimental and clinical studies of traditional Chinese medicine (TCM) have been reported over recent years, the applications of computational methods to drug discovery from Chinese herbs are still at an early stage. In the light of the spread of TCM to other parts of the world over the last few decades, and the growing number of publications in languages other than Chinese, this article focuses on work published in English and accessible to an international audience. Sources of information in appropriate format are particularly important for informatics, and the growing number of TCM-related databases is discussed. Applications of virtual screening both to the identification of single and multiple target ligands are covered, as are developments in 'target fishing', a novel technique which seeks to identify multiple receptors to which a compound may bind. Finally, the role of informatics in bridging the gulf between the paradigms of TCM and biomedical science is explored, and a discussion presented as to its use in probing the molecular basis of TCM.
2856. Impact of Taiwanese culture on beliefs about expressing anxiety and engaging in physical activity: a discursive analysis of the literature

By Ma Wei-Fen; Huang Xuan-Yi; Chang Hsiu-Ju; Yen Wen-Jiuan; Lee Sheuan
From Journal of clinical nursing (2010), 19(7-8), 969-77, Language: English, Database: MEDLINE

AIMS AND OBJECTIVES: This paper analysed the scholarly discourse about the influence of Taiwanese culture on beliefs about expressing anxiety and engaging in physical activity from literature review. BACKGROUND: The well-being of individuals with mental illness is promoted by the World Health Organization. Reducing barriers to treatment and care in community health-service systems requires cultural understanding. However, little is known about the influence of Taiwanese culture on physical activity programmes for people with anxiety disorders in Taiwan. DESIGN: A discursive analysis of the literature. METHOD: Literature was used to examine the impact of Taiwanese culture on beliefs about anxiety and physical activity from historical, economic, social, political and geographical perspectives. RESULTS: Taiwanese cultural beliefs about anxiety and physical activity can be summarised into six themes. Beliefs about anxiety are reflected in three themes: anxiety and shame, beliefs against direct communication and beliefs about anxiety and external forces. Beliefs about engaging in physical activity are reflected in three themes: beliefs about human action, the relationship between health and physical activity and priority of academic achievement. CONCLUSION: This paper exposes the hidden power of culture to influence Taiwanese beliefs about anxiety and physical activity. Three negative beliefs about anxiety influence the expression of anxiety symptoms and help-seeking behaviours. Two positive and one negative belief about physical activity significantly affect choice of activity type and level of participation in physical activity. Anxiety and physical activity have a dynamic relationship and both are deeply influenced by Taiwanese culture. RELEVANCE TO CLINICAL PRACTICE: An awareness of cultural influences on beliefs about anxiety and physical activity is important when encouraging Taiwanese people with anxiety disorders to engage in physical activity. This awareness may help nurses understand better how their patients perceive anxiety and physical activity, leading to more appropriate physical activity programmes to improve both physical and psychological well-being.

~0 Citings

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2857. Mushroom lectins: current status and future perspectives

By Singh Ram Sarup; Bhari Ranjeeta; Kaur Hemant Preet
From Critical reviews in biotechnology (2010), 30(2), 99-126, Language: English, Database: MEDLINE

Lectins are nonimmune proteins or glycoproteins that bind specifically to cell surface carbohydrates, culminating in cell agglutination. These are known to play key roles in host defense system and also in metastasis. Many new sources have been explored for the occurrence of lectins during the last few years. Numerous novel lectins with unique specificities and exploitable properties have been discovered. Mushrooms have attracted a number of researchers in food and pharmaceuticals. Many species have long been used in traditional Chinese medicines or functional foods in Japan and other Asian countries. A number of bioactive constituents have been isolated from mushrooms including polysaccharides, polysaccharopeptides, polysaccharide-protein complexes, proteases, ribonucleases, ribosome inactivating proteins, antifungal proteins, immunomodulatory proteins, enzymes, lectins, etc. Mushroom lectins are endowed with mitogenic, antiproliferative, antitumor, antiviral, and immune stimulating potential. In this review, an attempt has been made to collate the information on mushroom lectins, their blood group and sugar specificities, with an emphasis on their biomedical potential and future perspectives.

~0 Citings

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2858. Acupuncture for breech version: principles, technique, mode of action and utility--a literature review

By Sananes Nicolas; Vayssiere Christophe; Helmlinger Christine; Viville Brigitte; Kohler Monique; Aissi Germain; Trieu Ngoc-Tu; Langer Bruno; Favre Romain
From The journal of maternal-fetal & neonatal medicine : the official journal of the European Association of Perinatal Medicine, the Federation of Asia and Oceania Perinatal Societies, the International Society of Perinatal Obstetricians (2010), 23(5), 455-8, Language: English, Database: MEDLINE

OBJECTIVE: Version to correct breech presentation at term remains important, because feet-first vaginal delivery of a baby is associated with a higher risk of fetal morbidity and mortality. METHOD: The technique consists of puncture at point B67. This technique is thought to work by increasing the probability of the fetus turning by increasing active fetal movements. RESULTS: Five randomised studies evaluating the value of acupuncture in cases of siege presentation indicate that this method tended to be effective. However, no placebo-controlled study has been carried out. CONCLUSION: Acupuncture should be attempted in cases of breech presentation.

~0 Citings
2859. Advance of studies on anti-atherosclerosis mechanism of berberine
By Wu Min; Wang Jie; Liu Long-tao
From Chinese journal of integrative medicine (2010), 16(2), 188-92, Language: English, Database: MEDLINE

Coptis Chinensis is a traditional Chinese medicine herb that has the effect of clearing heat and drying dampness, purging fire to eliminate toxin. Berberine is the main alkaloid of Coptis Chinensis, and, recent researches showed that berberine had the effect of anti-atherosclerosis. This paper reviewed the anti-atherosclerosis mechanism of berberine, which may be related to regulating lipids, anti-inflammation, decompression, reducing blood sugar, and inhibiting vascular smooth muscle cell proliferation.

~2 Citing

2860. Preventive treatment of traditional Chinese medicine as antistress and antiaging strategy
By Liang Zhao-hui; Yin Da-zhong
From Rejuvenation research (2010), 13(2-3), 248-52, Language: English, Database: MEDLINE

Premedical intervention before diseases is one of the principal practices in traditional Chinese medicine (TCM) for tackling health problems and diseases. This paper explains the preventive treatment principle in TCM regarding the subhealth condition following stress-induced pathophysiological situations, mainly oxidative and glycation stresses, in the framework of metabonomics and cell biology. Scientific interpretations for various preventive treatments in TCM present the idea that disease prevention should surpass medical intervention in humans. Antistress biology is proposed for the first time as a preclinical practice or strategy for antiaging.

~0 Citing

2861. Research progress on IR improvement and acting mechanisms of active ingredients of traditional Chinese medicine
By Zheng Hua; Ge Yanru

The insulin resistance (IR) and the active ingredients of traditional Chinese medicine and their mechanisms to improve IR in the last 3 years are summarized. Retrieve, classify and arrange the recent documentations of china and abroad. IR can drive the occurrence and progress of type 2 diabetes mellitus (T2DM), and there are several molecular mechanisms for the occurrence of IR. IR has been a research focus of diabetes, the control strategies of T2DM have been changed from the "hypoglycemic therapy" into "improve the IR and IR-related metabolic abnormalities, and make a comprehensive prevention and treatment of cardiovascular risk factors". It is demonstrated by experiments that a variety of active ingredients of traditional Chinese medicine can improve IR through different mechanisms to treat diabetes mellitus.

~0 Citing

2862. Advances in study on traditional Chinese medicine against biofilms
By Wang Changzhong

Biofilms can evade antibiotics and immune attacks, and become liable to induce drug resistance, and correspondingly cause chronic and recalcitrant infection. traditional Chinese medicine show special advantages in treatment of biofilm infection. The author reviewed the reports concerning the research progress of traditional Chinese medicine in treating biofilms in light of its own research in recent years, and summarized the research progress on traditional Chinese medicine intervening biofilms of Pseudomonas aeruginosa, Staphylococcus, Escherichia coli and Candida albicans.
2863. Traditional Chinese medicine and related active compounds against hepatitis B virus infection

By Cui Xiaoyan; Wang Yueying; Kokudo Norihiro; Fang Dingzhi; Tang Wei

Hepatitis B induced by hepatitis B virus (HBV) remains a major public health problem worldwide. Although several antiviral drugs have been approved for hepatitis B, they cause significant dose-dependent side-effects (interferon-alpha) and drug resistance (lamivudine, etc.). Safe and potent new anti-HBV drugs are urgently needed. Traditional Chinese medicine (TCM) is an established segment of the health care system in China and widely used for hepatitis B in China and many parts of the world. Many TCMs and related active compounds have been reported that have promising and potent anti-HBV activities, including Phyllanthus, Salvia miltiorrhiza, Rheum palmatum L., Radix Astragali, oxymatrine, artemisinin and artesunate, and wogonin. Thus, TCM is a potential candidate for anti-HBV drugs. More information is needed regarding TCMs, including preparation, standardization, identification of active ingredients, and toxicological evaluation. Therefore, TCM development needs to apply advanced and interdisciplinary methodology and technology and perform further rigorously designed experimental and clinical investigations.

~2 Citings

2864. Active compounds in Chinese herbs and medicinal animal products which promote blood circulation via inhibition of Na+, K+-ATPase

By Tzen Jason Tc; Chen Ronald Jy; Chung Tse-Yu; Chen Yi-Ching; Lin Nan-Hei
From Chang Gung medical journal (2010), 33(2), 126-36, Language: English, Database: MEDLINE

The therapeutic effect of cardiac glycosides for congestive heart failure lies in their reversible inhibition on Na+, K+-ATPase located in human myocardium. Several steroid-like compounds containing a core structure similar to cardiac glycosides have been found in many Chinese herbs and medicinal animal products conventionally used to promote blood circulation. They are putatively responsible for the therapeutic effect of those medicinal products via the same mechanism of inhibiting Na+, K+-ATPase. Inhibitory potency on Na+, K+-ATPase by ginsenosides, one of the identified steroid-like compounds, is significantly affected by sugar attachment that might cause steric hindrance of their binding to Na+, K+-ATPase. Ginsenosides with sugar moieties attached only to the C-3 position of the steroid-like structure, equivalent to the sugar position in cardiac glycosides, substantially inhibit Na+, K+-ATPase. However, their inhibitory potency is abolished when sugar moieties are linked to the C-6 or C-20 position of the steroid-like structure. In contrast, no appreciable contents of steroid-like compounds are found in danshen, a well-known Chinese herb traditionally regarded as an effective medicine promoting blood circulation. Instead, magnesium lithospermate B (MLB), the major soluble ingredient in danshen, is assumed to be responsible for the therapeutic effect by inhibiting Na+, K+-ATPase in a manner comparable to cardiac glycosides. Neuroprotective effects of cardiac glycosides, ginsenosides and MLB against ischemic stroke were accordingly observed in a cortical brain slice-based assay model. Whether the neuroprotection is also triggered by inhibition of Na+, K+-ATPase remains to be investigated. Molecular modeling suggests that cardiac glycosides, ginsenosides and MLB presumably bind to the same extracellular pocket of the Na+, K+-ATPase alpha subunit.

~0 Citings

2865. Traditional Chinese Medicine for treatment of fibromyalgia: a systematic review of randomized controlled trials

By Cao Huijuan; Liu Jianping; Lewith George T
From Journal of alternative and complementary medicine (New York, N.Y.) (2010), 16(4), 397-409, Language: English, Database: MEDLINE

The therapeutic effect of TCM for treatment of fibromyalgia lies in their treatment of the underlying causes such as Qi and blood stagnation, deficiency, and dampness. Several studies have been conducted to evaluate the efficacy of TCM in the treatment of fibromyalgia. However, the results are inconsistent and further research is needed to establish the effectiveness of TCM in the treatment of fibromyalgia.
BACKGROUND: Traditional Chinese Medicine (TCM) is popular for treatment of fibromyalgia (FM) although there is a lack of comprehensive evaluation of current clinical evidence for TCM's therapeutic effect and safety. Objective: To review systematically the beneficial and harmful effects of TCM therapies for FM. METHODS: We searched six English and Chinese electronic databases for randomized clinical trials (RCTs) on TCM for treatment of FM. Two authors extracted data and assessed the trial quality independently. RevMan 5 software was used for data analyses with an effect estimate presented as mean difference (MD) with a 95% confidence interval (CI). RESULTS: Twenty-five RCTs were identified with 1516 participants for this review. Seven trials (28%) were evaluated as having a low risk of bias and the remaining trials were identified as being as unclear or having a high risk of bias. Overall, ten trials were eligible for the meta-analysis, and data from remaining 15 trials were synthesized qualitatively. Acupuncture reduced the number of tender points (MD, -3.21; 95% CI -4.23 to -2.11; p < 0.00001, I(2) = 0%), and pain scores compared with conventional medications (MD, -1.78; 95% CI, -2.24 to -1.32; p < 0.00001; I(2) = 0%). Acupuncture showed no significant effect, with a random-effect model, compared with sham acupuncture (MD, -0.55; 95% CI, -1.35-0.24; p = 0.17; I(2) = 69%), on pain reduction. A combination of acupuncture and cupping therapy was better than conventional medications for reducing pain (MD, -1.66; 95% CI, -2.14 to -1.19; p < 0.00001; I(2) = 0%), and for improving depression scores with related to FM (MD, -4.92; 95% CI, -6.49 to -3.34; p < 0.00001; I(2) = 32%). Other individual trials demonstrated positive effects of Chinese herbal medicine on pain reduction compared with conventional medications. There were no serious adverse effects reported that were related to TCM therapies in these trials. CONCLUSIONS: TCM therapies appear to be effective for treating FM. However, further large, rigorously designed trials are warranted because of insufficient methodological rigor in the included trials.

By Zhang Yuqing; Liu Jianping; Wang Jie; He Qingyong
From Journal of alternative and complementary medicine (New York, N.Y.) (2010), 16(4), 375-95, Language: English, Database: MEDLINE

OBJECTIVE: The objective of this study was to systematically evaluate the effects of Traditional Chinese Medicine (TCM) therapy including acupuncture, tu'ina, oral herbal medicine, herbal bathing, and collateral-channels conduct therapy for treating children with cerebral palsy (CP). METHODS: We included randomized controlled trials (RCTs) on TCM for children with CP. We searched the China National Knowledge Infrastructure, Database for Chinese Technical Periodicals, Chinese Biomedical Literature Database, databases of Chinese biomedical journals/Chinese Medical Current Contents, Wan Fang Data, PubMed, MEDLINE, Embase, and the Cochrane Library until the end of July 2009, and searched the reference list of retrieved papers. Data were extracted by 1 author and checked for validation by another author, and data were analyzed using RevMan 4.3.2. Only one meta-analysis was performed due to the heterogeneity among the trials. RESULTS: Thirty-five (35) RCTs involving 3286 children with CP using TCM therapy and conventional therapy (CT) including physical, occupational, and speech therapy, hyperbaric oxygen, cranial nerves nutrition agents, or any combination of above were included. The methodological quality was generally low in terms of allocation concealment, blinding, and intention-to-treat analysis. Meta-analysis showed acupuncture combine with CT improved activities of daily living (mean difference: 6.38, 95% confidence interval 5.15-7.61; p < 0.00001, n = 160) compared with CT alone. Acupuncture plus tu'ina, or plus herbal medicine and CT showed significant beneficial effects on comprehensive function in terms of both physical and mental aspects, independence, and verbal function compared with CT alone. The combination of radix Astragali injection with CT showed significant benefit on gross motor function and social behavior adaptation comparing with CT. There are six trials reported adverse events that were not associated with acupuncture, tu'ina, and/or herbal medicine. CONCLUSIONS: Acupuncture with or without CT or other conventional therapy, tu'ina, herbal medicine, and collateral channels conduct treatment combined with CT may have benefit in children with CP. However, due to insufficient evidence, further rigorous trials are warranted.

2867. Research progress on mutation by spaceflight in medicinal plants breeding
By Yan Shuo; Gao Wenyuan; Lu Fuping; Zhao Runhuai
Space breeding in medicinal plants is special characteristics in China. Compared with other plants, in spite of a relatively small number, medicinal plants have more obvious characteristics and advantages. Research on medicinal plants has also been carried into all aspects, such as biological traits, physiology and biochemistry, genomics, as well as differences in chemical composition, and chemical composition analysis is also involved. However, compared with other plants, especially crops and vegetables, biological research is an obvious deficiency, that is mainly reflected in the insufficient genetics and breeding researches, the stability of genetic traits from generation to generation were not followed up and in-depth study in breeding areas was not carried out. If medicinal plants resources from space with the genetic stability good quality were selected, it would address the problem of lack of resources and ease the pressure on wild resources of medicinal plants. It would at the same time play an important role in promoting the development of medicinal botany space breeding and the implementation of modernization of traditional Chinese medicine.

~0 Citings

2868. Research progress of bone marrow mesenchymal stem cells differentiation into nerve-like cells induced by traditional Chinese medicine

By Li Sheng-Hua; Guo Ping-De; Wang Wen-Jing
From Zhongguo gu shang = China journal of orthopaedics and traumatology (2010), 23(3), 233-5, Language: Chinese, Database: MEDLINE

Bone marrow mesenchymal stem cells (MSCs) have active abilities of self-replication and multidifferentiation. In recent years, a lot of studies have proved that MSCs can be induced and differentiated into nerve-like cells under certain conditions. Because of some advanced characteristics including sampling convenience, no immune rejection, high transfection rate and stable exogenous gene expression, MSCs will provide new way in treating disease of nervous system. In this article, the research progress of bone marrow mesenchymal stem cells differentiation into nerve-like cells induced by Traditional Chinese Medicine shall be discussed, and explore the research thinking guided by basis theory of TCM.

~0 Citings

2869. RNA polymerase - an important molecular target of triptolide in cancer cells

By Pan Jingxuan
From Cancer letters (2010), 292(2), 149-52, Language: English, Database: MEDLINE

Triptolide, a diterpenoid triepoxide, is the key biological component of Tripterygium wilfordii Hook. f. which was used in traditional Chinese medicine for centuries to treat inflammation and autoimmune diseases. Triptolide has shown potent activity in not only anti-inflammation and immune modulation, but also antiproliferative and proapoptotic activity in many different types of cancer cells. However, for a long time, the precise molecular target(s) of triptolide have remained elusive. Recently, several groups discovered that triptolide inhibited the activity of RNA polymerase. This review will focus on these breakthrough findings about the molecular target of triptolide and its implications for targeted-cancer therapeutics.

~3 Citings

2870. Xiaochaihu Tang for treatment of chronic hepatitis B: a systematic review of randomized trials

By Qin Xian-kui; Li Ping; Han Mei; Liu Jian-ping
From Zhong xi yi jie he xue bao = Journal of Chinese integrative medicine (2010), 8(4), 312-20, Language: Chinese, Database: MEDLINE

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BACKGROUND: Xiaochaihu Tang was a compound traditional Chinese herbal medicine recorded in ancient Chinese medical book Shanghanlun, and has been widely used for chronic liver diseases especially in Japan. OBJECTIVE: To assess the beneficial effects and safety of Xiaochaihu Tang, for chronic hepatitis B (CHB). SEARCH STRATEGY: Electronic and manual searches were conducted and the search ended in November 2009. INCLUSION CRITERIA: We included randomized clinical trials testing Xiaochaihu Tang against placebo, non-specific treatment, antivirals, or combined with antivirals against antivirals alone. DATA EXTRACTION AND ANALYSIS: Selection of trials for inclusion, assessment of methodological quality by Jadad score, data extraction and data syntheses were conducted according to the Cochrane Hepato-Biliary Group methods. RESULTS: Sixteen randomized trials (involving 1,601 CHB patients) with various methodological quality were included. One trial published in English had good quality, while other trials published in Chinese were of poor quality. The pooled results showed that Xiaochaihu Tang combined with antiviral drugs was more effective in serum loss of hepatitis B viral markers and in improving liver function compared with antiviral drugs alone. Xiaochaihu Tang was not different from placebo in terms of viral clearance or improving liver function. However, Xiaochaihu Tang was superior to non-specific treatment in liver function improvement. There were no adverse effects reported in the trials regarding Xiaochaihu Tang, but adverse effects were reported in patients treated by interferon, and severe adverse effects occurred in few cases. CONCLUSION: Xiaochaihu Tang in this review appears to be effective in improving liver function and clearance of serum hepatitis B viral markers in patients with chronic hepatitis B. However, due to poor methodological quality in the majority of included trials the potential benefits need to be confirmed in rigorous clinical trials following international standards.

~0 Citings

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2871. Application status and safety countermeasures of traditional Chinese medicine injections

By Xiong Xing-jiang; Wang Jie; He Qing-yong

The research and development of traditional Chinese medicine (TCM) injections is an important innovation of modernization of TCM, which has great clinical value and irreplaceability in medical enterprise of China. But reports of adverse events of TCM injections gradually increased in recent years and the security problems received much concern with the enlargement of its application range. The reasons include unreliable herb sources and unreasonable utilization, in which the former includes historical reasons and non-unified standard and the latter includes combined use of Chinese and Western medicine, misused dosage and formula not corresponding to syndromes. We should face the problems, and preventive measures should be worked out by pharmaceutical factory, doctors and government. The first one is strictly guarding the pharmaceutical preparation procedures with advanced pharmaceutical technology; the second one is advocating the idea of formula corresponding to syndromes to minimize the occurrence of adverse effects; and the last one is strengthening the postmarketing reevaluation and market supervising management.

~0 Citings

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2872. Analysis of the adverse reactions induced by natural product-derived drugs

By Zeng Zhi-Ping; Jiang Jian-Guo
From British journal of pharmacology (2010), 159(7), 1374-91, Language: English, Database: MEDLINE

Compared with the therapeutic effects of established medicinal drugs, it is often considered that natural product-derived drugs are of a more benign nature in side-effects, which has made natural medicines become a popular form of therapy. Traditional Chinese medicine (TCM) is generally considered as being natural and harmless. TCM has been paid much more attention than before and widely used for the treatment nowadays. However, with the increasing cases of adverse drug reactions (ADRs), the ADRs induced by TCM are becoming more widely recognized. Some ADRs are sometimes even life-threatening. This article reviews literatures on ADRs induced by TCM which was published in the past 10 years. A total of 3,122 cases including complete data are selected for the present analysis. From the data of the 3,122 cases, statistics is carried out to the distribution of administration routes and time of the occurrence of ADRs, the prognosis of ADRs, sex and age factors, types and clinical symptoms of ADRs, and drugs involved in ADRs. In addition, occurrence and influencing factors of TCM-induced diseases are also analysed, which includes spices confusion, processing drugs improperly, toxic components, long-term medication, improper concerted application, interaction of TCM and Western medicine. It is concluded that the efficacy and toxicity of TCM, often using the compound prescription involving various plants and animals, resulted from a variety of chemical constituents, which lead to a comprehensive response in the human body. The ‘toxicity’ of TCM should be correctly recognized and reasonably utilized.

~0 Citings
2873. Acupuncture for respiratory disorder: what's the point?

By Gibson Denise; Bruton Anne; White Peter

Acupuncture has been an integral part of Traditional Chinese Medicine for thousands of years. It has been used for the treatment of many painful and nonpainful conditions. Its use within Western medicine has increased since the 1970s and acupuncture is now practiced by a variety of healthcare practitioners across Europe. There is an accepted body of evidence to support the use of acupuncture for back or neck pain. Anecdotal evidence from both clinicians and patients suggests there may be some beneficial effect of acupuncture in the treatment of respiratory symptoms, such as bronchospasm, breathlessness and hyperventilation syndromes. Some respiratory clinicians are introducing acupuncture as a treatment modality for the management of respiratory symptoms, despite the lack of available objective evidence to support this practice. This article reviews the available evidence for the use of acupuncture in respiratory disorders and provides discussion of the methodological issues that are evident within this literature. It also highlights reasons for the lack of objective evidence to support acupuncture for respiratory conditions and the difficulties faced by acupuncture researchers when designing randomized, placebo-controlled trials. Currently, there is insufficient evidence to support a recommendation for the use of acupuncture in respiratory disorders.

~0 Citings

2874. The 2010 Canadian Cardiovascular Society guidelines for the diagnosis and management of heart failure update: Heart failure in ethnic minority populations, heart failure and pregnancy, disease management, and quality improvement/assurance programs

By Howlett Jonathan G; McKelvie Robert S; Costigan Jeannine; Ducharme Anique; Estrella-Holder Estrellita; Ezekowitz Justin A; Giannetti Nadia; Haddad Haissam; Heckman George A; Herd Anthony M; et al
From The Canadian journal of cardiology (2010), 26(4), 185-202, Language: English, Database: MEDLINE

Since 2006, the Canadian Cardiovascular Society heart failure (HF) guidelines have published annual focused updates for cardiovascular care providers. The 2010 Canadian Cardiovascular Society HF guidelines update focuses on an increasing issue in the western world - HF in ethnic minorities - and in an uncommon but important setting - the pregnant patient. Additionally, due to increasing attention recently given to the assessment of how care is delivered and measured, two critically important topics - disease management programs in HF and quality assurance - have been included. Both of these topics were written from a clinical perspective. It is hoped that the present update will become a useful tool for health care providers and planners in the ongoing evolution of care for HF patients in Canada.

~0 Citings

2875. Molecular basis of traditional Chinese medicine in cancer chemoprevention

By Wang Steven; Penchala Sravan; Prabhu Sunil; Wang Jeffrey; Huang Ying
From Current drug discovery technologies (2010), 7(1), 67-75, Language: English, Database: MEDLINE

Cancer is the second leading cause of death, for which current therapeutic approaches are still very limited. Chemoprevention is an important approach to decreasing cancer morbidity and mortality by the use of non-toxic natural or synthetic substances to reverse the processes of initiation and subsequent progression of cancer. A substantial amount of evidence from human, animal and cell line studies has shown that many herbal products used for traditional Chinese medicine (TCM) can exert chemopreventive effects. The underlying theory for TCM to treat or prevent cancer is to bring the patient back to a healthy state by modifying multiple cancer-causing events. Since carcinogenesis involves multiple abnormal genes/pathways, using TCM in cancer chemoprevention may be superior to the agents targeting a single molecular target alone. However, before TCM can be accepted universally as complementary and alternative medicine for cancer treatment and prevention, it is crucial to understand the molecular basis for their effects. This review highlights several known molecular mechanisms of selected TCM in chemoprevention. Many TCM products or single active components have been reported to inhibit a variety of processes in cancer cell growth, invasion and metastasis by modulating a wide range of molecular targets, including cyclooxygenase-2 (COX-2), nuclear factor-Kappa B (NF-kappaB) and nuclear factor erythroid 2 -related factor 2 (Nrf2)-mediated antioxidant signaling pathways. The TCM and their active components with potent chemopreventive effects can be considered as promising lead agents for the design of more effective and less toxic agents for cancer chemoprevention.
2876. **Traditional Chinese medicines** (TCMs) for molecular targeted therapies of tumours

By Youns Mahmoud; Hoheisel Jorg D; Efferth Thomas

*From* Current drug discovery technologies *(2010)*, 7(1), 37-45, Language: English, Database: MEDLINE

Scientific progress in genetics, cell and molecular biology has greatly ameliorated our comprehensive understanding of the molecular mechanisms of neoplastic transformation and progression. The rapidly advancing identification of molecular targets in human cancers during the last decade has provided an excellent starting point for the development of novel therapeutics. A huge variety of potential molecular targets have been identified, many of which are already in the market for therapeutic purposes. It is now becoming possible to target pathways and/or molecules that are crucial in maintaining the malignant phenotype. **Traditional Chinese medicine** (TCM) is often considered as alternative or complementary medicine. TCM represents a holistic approach and lacks high-quality scientific evidence on its effectiveness. Therefore, it is frequently regarded with some scepticism by western academic medicine. In this review, we report that application of modern technologies allowed identification of novel molecular targets modulating the anti-tumour activity of natural products derived from TCM. Moreover, we tried to cross the bridge between TCM and Western modern medicine to be able to implement them for the sake of cancer patients.

~1 Citing

2877. Use of compound Chinese medicine in the treatment of lung cancer

By Tian Guoqing; Guo Leilei; Gao Weimin

*From* Current drug discovery technologies *(2010)*, 7(1), 32-6, Language: English, Database: MEDLINE

**Traditional Chinese**/herbal medicine (TCM) is now commonly used by cancer patients of Asian ethnicity to supplement or replace prescribed treatments. The overall survival rate for lung cancer has not improved significantly in the past several decades; it remains the leading cause of cancer death. Much more attention has been paid by clinicians and researchers to the possible use of compound Chinese medicine (CCM) as effective anti-lung cancer medicines. In this review, we briefly summarize the clinical and experimental status of numerous CCMs recently developed primarily in China for the treatment of lung cancer, including formulations, treatment effectiveness, and molecular mechanisms. By presenting this information, our goal is to possibly open up new future avenues for the practice of lung cancer treatment.

~0 Citing

2878. Targeting tumor proteasome with traditional Chinese medicine

By Yang Huanjie; Liu Jinbao; Dou Q Ping


The proteasome is a multicatalytic protease complex whose activity is required for the growth of normal or tumor cells. It has been shown that human cancer cells are more sensitive to proteasome inhibition than normal cells, indicating that the proteasome could be a target of chemotherapy. Studies suggest that traditional Chinese medicine (TCM) is an effective approach for cancer treatment. Here we reviewed several TCMs for their potential in treatment of cancer. This short review focuses mainly on the TCMs that potentially target the tumor cellular proteasome and NF-kappaB pathway whose activation is dependent on the proteasome activity.

~0 Citing

2879. Merging traditional Chinese medicine with modern drug discovery technologies to find novel drugs and functional foods

By Graziose Rocky; Lila Mary Ann; Raskin Ilya

*From* Current drug discovery technologies *(2010)*, 7(1), 2-12, Language: English, Database: MEDLINE
Traditional Chinese Medicines (TCM) are rapidly gaining attention in the West as sources of new drugs, dietary supplements and functional foods. However, lack of consistent manufacturing practices and quality standards, fear of adulteration, and perceived deficiencies in scientific validation of efficacy and safety impede worldwide acceptance of TCM. In addition, Western pharmaceutical industries and regulatory agencies are partial toward single ingredient drugs based on synthetic molecules, and skeptical of natural product mixtures. This review concentrates on three examples of TCM-derived pharmaceuticals and functional foods that have, despite these usual obstacles, risen to wide acceptance in the West on the basis of their remarkable performance in recent scientific investigations. They are: Sweet wormwood (Artemisia annua), the source of artemisinin, which is the currently preferred single compound anti-malarial drug widely used in combination therapies and recently approved by US FDA; Thunder god vine (Tripterygium wilfordii) which is being developed as a botanical drug for rheumatoid arthritis; and green tea (Camellia sinensis) which is used as a functional beverage and a component of dietary supplements.

~0 Citings
2882. Review and reflection on study of four properties of traditional Chinese medicine

By Deng Jiagang; Qin Huazhen; Liu Lei; Liang Yanjun

To summarize the biological effects of four natures of traditional Chinese medicine (TCM) in the recent 40 years, including cold, hot, warm and cool, which have the effect on central nervous system, endocrine system on the activity of sympathetic nerves, basal metabolic rate, the function of organs and tissues and secretion of cytokine out of body. And to review the new concepts and new hypotheses in recent 10 years which proposed on the four natures of traditional Chinese medicine. Based on the above summary we pointed out that the previous studies on biological effects have shortage in the following aspects: The studies had little connection with the TCM theory; The research highly concentrated on the biological effects of the cold and heat natures of drug; There is almost no research on the biological effects of the neutral nature; The research on the biological effects of the natures of traditional Chinese medicine had no combination with effects of drugs. And pointed out that studies on four natures of traditional Chinese medicine will be a multi-level, multi-disciplinary, multi-factor, multi-targe research, connecting Chinese medicine theory. The research will be a combination of the macro research and the micro research, the qualitative research and the quantitative research and the experimental research and the clinical research.

~0 Citings

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2883. Radix isatidis and infectious diseases caused by viruses

By Fang Jianguo; Wan Jin; Tang Jie; Wang Wenqing; Liu Yunhai
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2009), 34(24), 3169-72, Language: Chinese, Database: MEDLINE

Radix Isatidis (Banlangen in Chinese), used to clearing away heat and toxic material, is a traditional Chinese medicinal (TCM) herb. It is frequently used for preventing and treating infectious diseases caused by viruses. To provide scientific basis for the effect of Radix Isatidis on infectious diseases, the traditional effect and new research development on pharmacological activities are summarized in the review. According to the existed problems in the clinical application, the weak links and shortages of quality research and industrialized production of Radix Isatidis are discussed. It could present the new ideas for improving the technology of Radix Isatidis preparation, and promoting the rational use of the preparation in the clinical treatment.

~0 Citings

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2884. Advancement of maggot including living body to treat chronic infected wounds

By Zhang Zhen; Wang Shouyu; Diao Yunpeng; Zhang Houli; Huang Shanshan; Lv Decheng
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2009), 34(24), 3162-4, Language: Chinese, Database: MEDLINE

Human has used maggot to treat diseases for thousands of years. In recent years, with abuse of antibiotic and the rising incidence of antibiotic resistance, maggot therapy, as a surgical alternative, is mainly applied to treat chronic infected wounds on account of its low cost, efficacy and safety. Its mechanisms are disinfection, bio-debridement and enhancement of tissue regeneration. Maggot therapy which serves as a kind of biological therapy is promising. However, living maggot therapy could result in inevitable complications, so that we should apply traditional Chinese medicine theory to investigate and develop new delivery method of maggot. The review summarizes the past and present of maggot therapy.

~0 Citings

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2885. Microorganisms of special herb-glycosidases and their fermentation, enzyme properties

By Jin Fengxie; Zhuang Ziyu; Yu Hongshan; Xu Jinli; Liu Qingmei; An Dongshan; Im Wanteak; Lee Sungtaik
From Sheng wu gong cheng xue bao = Chinese journal of biotechnology (2009), 25(12), 1863-70, Language: Chinese, Database: MEDLINE

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Herb-glycosides are main active elements of Zhongcaoyao (Chinese traditional medicines, Chinese medical herbs). However, the herb-glycoside structures are not optimal active structure for the human bodies. After orally taken up, the herb-glycosides of Zhongcaoyao could be changed into other more active structures by the digestive system such as enzymes and intestinal microorganisms; then degraded and absorbed in the human body and play the real role of pharcmic effect; but only a small amount could be changed and controlled by circadian state of the human body. If this bioc change of herb-glycosides to more active structures in vivo was finished in vitro, it is very useful for the development of the Chinese traditional medicines, new plant medicines, health food, and function cosmetics. To biotransformate herb-glycosides to more active structure, this paper introduced the studies of author’s team on the new microorganism isolation of the special herb-glycosidases and enzyme fermentation, the special enzyme purification and characterization.

~0 Citings

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Amorphophallus konjac (konjac) has long been used in China, Japan and South East Asia as a food source and as a traditional medicine. Flour extracted from the corm of this species is used in Far Eastern cuisine to make noodles, tofu and snacks. In traditional Chinese medicine (TCM), a gel prepared from the flour has been used for detoxification, tumour-suppression, blood stasis alleviation and phlegm liquefaction; and for more than 2000 years has been consumed by the indigenous people of China for the treatment of asthma, cough, hernia, breast pain, burns as well as haematological and skin disorders. Over the past two decades, purified konjac flour, commonly known as konjac glucomannan (KGM) has been introduced on a relatively small scale into the United States and Europe, both as a food additive and a dietary supplement. The latter is available in capsule form or as a drink mix and in food products. Clinical studies have demonstrated that supplementing the diet with KGM significantly lowers plasma cholesterol, improves carbohydrate metabolism, bowel movement and colonic ecology. Standards for the classification of both konjac flour and KGM have been established by the Chinese Ministry of Agriculture, the European Commission and the U.S. Food Chemicals Codex. However, to date, there is no worldwide agreed regulatory standard for konjac flour or KGM. This highlights the need for harmonization of konjac commercial standards to assess and ensure the quality of existing and future KGM products. Despite the widespread consumption of konjac derived products in East and South East Asia, there has been limited research on the biology, processing and cultivation of this species in the West. Most studies performed outside Asia have focussed on the structural characterisation and physicochemical properties of KGM. Therefore, the objective of this monograph is to review the literature covering the ethnic uses, botany and cultivation of konjac corms, together with the health benefits of KGM with the associated requirements for quality control. Possible directions for future research and development and standardisation of production and classification of this versatile natural product will be discussed.

~2 Citings

2889. The genus Scutellaria an ethnopharmacological and phytochemical review

By Shang Xiaofei; He Xirui; He Xiaoying; Li Maxing; Zhang Ruxue; Fan Pengcheng; Zhang Quanlong; Jia Zhengping


Scutellaria (HUANG QIN) (Lamiaceae), which includes about 350 species commonly known as skullcaps, is widespread in Europe, the United States and East Asia. Some species are taken to clear away the heat-evil and expel superficial evils in traditional Chinese medicine (TCM). The present paper reviews the ethnopharmacology, the biological activities and the correlated chemical compounds of Scutellaria species. More than 295 compounds have been isolated, among them flavonoids and diterpenes. Studies show that Scutellaria and its active principles possess wide pharmacological actions, such as antitumor, anti-angiogenesis, hepatoprotective, antioxidant, anticonvulsant, antibacterial and antiviral activities. Currently, effective monomeric compounds or active parts have been screened for pharmacological activity from Scutellaria in vivo and in vitro. Increasing data supports application and exploitation for new drug development.

~0 Citings

2890. Pathogenesis and treatment of non-alcoholic fatty liver disease

By Xie Ping; Zhou Xin-xi; Zhang Qin

From Zhong xi yi jie he xue bao = Journal of Chinese integrative medicine (2010), 8(3), 201-9, Language: Chinese, Database: MEDLINE

In order to explore the pathogenesis of non-alcoholic fatty liver disease (NAFLD), and to find the best evidence for clinical practice, recent literature about the pathogenesis and treatment of NAFLD was analyzed, and it was found that the generation of reactive oxygen species (ROS) is the most important factor in development of NAFLD. Based on insulin resistance (IR), generation of ROS is a central link in the course of "two hits". Other factors, such as leptin resistance, caspase-3, Fas and its ligand, peripheral natural killer T cells, cyclooxygenase-2, metabolic nuclear receptors, hepatic deposition of iron, ferritin, haptoglobin, retinol binding protein 4, imbalance of intestinal flora, mitochondrial dysfunction and endoplasmic reticulum stress, also contribute to the progress of NAFLD. In the treatment of NAFLD, beside the conventionally used methods such as IR improvement, antioxidation and lipid metabolism improvement, other medicines such as nuclear metabolism ligands or activators, iron-chelating agents and syndrome differentiation treatment in traditional Chinese medicine also have good efficacy.

~0 Citings
2891. Acupuncture in primary care

By Mao Jun J; Kapur Rahul
From Primary care (2010), 37(1), 105-17, Language: English, Database: MEDLINE

Acupuncture, an ancient traditional Chinese medical therapy, is used widely around the world. When practiced by a certified provider, it is safe and patients often find it calming and relaxing. Animal and human studies have found a physiologic basis for acupuncture needling in that it affects the complex central and peripheral neurohormonal network. Although it is unclear whether acupuncture is beneficial over sham/placebo acupuncture, acupuncture care yields clinically relevant short- and long-term benefits for low back pain, knee osteoarthritis, chronic neck pain, and headache. The integration of acupuncture into a primary care setting also appears to be cost-effective. The practice of acupuncture in primary care requires rigorous training, financial discipline, and good communication skills. When done correctly, acupuncture is beneficial for both patients and providers.

~2 Citings

2892. Advantages of nanotechnology-based Chinese herb drugs on biological activities

By Huang Sherry; Chang Walter H
From Current drug metabolism (2009), 10(8), 905-13, Language: English, Database: MEDLINE

A number of new nanotechnology-based Chinese herb drugs have been developed that have efficient biopharmaceutical properties and desirable target characteristics. This offers several alternatives for medical applications. Nanoparticles of Chinese herb drugs possess many benefits, such as improving component solubility, enhancement of bioavailability, increasing absorbency of the organism, reducing medicinal herb doses, and achieving steady-state therapeutic levels of drugs over an extended period compared with traditional Chinese herb drug preparations. There are two basic techniques, 'bottom up' or 'top down', to prepare Chinese herb nanoparticles. Furthermore, specific surface modifications and new design strategies of Chinese herb drug nanoparticles are created to profit clinical applications. This review presents recent advances in nanotechnology-based Chinese herb drugs.

~1 Citing

2893. The virtuous effect of heat shock protein 70 and evil effect of nuclear factor-kappa B in patients with chronic gastric disease of Pi-Wie damp-heat syndrome type

By Cui Na-juan; Hu Ling; Lao Shao-xian
From Zhongguo Zhong xi yi jie he za zhi Zhongguo Zhongxiyi jiehe zazhi = Chinese journal of integrated traditional and Western medicine / Zhongguo Zhongxiyi jiehe zazhi = Chinese journal of integrated traditional and Western medicine (2009), 29(12), 1130-2, Language: Chinese, Database: MEDLINE

It has been proved in recent studies that the chronic gastric disease (CGD) of Pi-Wei damp-heat syndrome type (CGD-PWDH) is closely related with heat shock protein 70 (HSP70) and nuclear factor-kappa B (NF-kappaB). HSP70 can protect the auto-stability of cells and elevate the immune function in organism against tumor or multiple exogenous pathogens. Increasing of NF-kappaB expression presents in case of Helicobacter pylori (Hp) stimulation, it could induce inflammatory reaction, while inflammation factors could act inversely to enhance the expression of NF-kappaB, thus to cause and expand the damage of gastric mucosa. In addition, HSP shows blocking effect on the activation and expression of NF-kappaB. So, the author considered that in patients of Hp associated CGD-PEDH, HSP 70 exhibits the effect as that of "vital energy" and NF-kappaB play a role as the "evil qi" in Chinese medicine, the expressions of the two may embody the vital-evil combating manner of Pi-Wei damp-heat syndrome.

~0 Citings

2894. Immune reconstitution related factors in patients with HIV/AIDS

By Wang Jie; Lin Hong-sheng; Tang Yan-li
From Zhongguo Zhong xi yi jie he za zhi Zhongguo Zhongxiyi jiehe zazhi = Chinese journal of integrated traditional and Western medicine / Zhongguo Zhong xi yi jie he za zhi Zhongguo Zhongxiyi jiehe zazhi = Chinese journal of integrated traditional and Western medicine (2009), 29(12), 1125-9, Language: Chinese, Database: MEDLINE
Immune reconstitution could be found in part of HIV/AIDS patients after receiving highly active anti-retroviral therapy (HAART). Its influencing factors are very complex. Many factors, such as the demographic factor, stage of HIV disease, pattern of therapy, sort of co-infections, baseline of CD4 T-cell count, abnormal immune activation, related immune phenotype, and virologic factors, all could influence the immune reconstitution. In view of Chinese medicine (CM) may play a positive role in this process, the clinical evidences for above-mentioned factors were summed up briefly in this paper for providing reference to the future studies on immune reconstitution with intervention of CM.

~0 Citings

2895. Advances of studies on needle retention time in acupuncture treatment

By Wu Meng-meng; Guan Li-ping; Liu Cun-zhi
From Zhongguo zhen jiu = Chinese acupuncture & moxibustion (2010), 30(2), 170-2, Language: Chinese, Database: MEDLINE

Needle retention is one of the important links in clinical acupuncture, thus, ancient medical scholars emphasized its value. This paper summarizes and evaluates the recent literature about needle retention time in terms of course of disease, category of disease, patient's condition and acupuncture location. The modern researches verify and develop the knowledge of needle retention in ancient times. However, study designs of randomized controlled trial for evidence-based medicine are not many, most of which are observational studies. In the future, clinical research need to apply scientific design based on Chinese medicine theory to investigate the principles of needle retention and the optimized needle retention time. This will consequently guide the standardization and systemization of acupuncture in clinical practice.

~0 Citings

2896. Traditional Chinese veterinary medicine: the mechanism and management of acupuncture for chronic pain

By Cantwell Shauna L
From Topics in companion animal medicine (2010), 25(1), 53-8, Language: English, Database: MEDLINE

Complementary and alternative medicine can be defined as the diagnosis, treatment, and/or prevention that complements mainstream medicine, satisfying a demand not met by orthodoxy and diversifying the conceptual framework of medicine. Acupuncture is being used much more commonly now as a sole or integrative modality in veterinary medicine and can play a large role in management of inflammation and chronic pain. Western medical etiology, pathophysiology, diagnosis, and treatment should be considered before applying acupuncture. This article describes the evolving biomedical basis of acupuncture analgesia and gives the practitioner an overview of how acupuncture can be performed in a medical setting.

~1 Citing

2897. Progresses on mechanisms of pharmacological and toxicological effects of cinnabar

By Zhou Xinrui; Wang Qi; Yang Xiaoda
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2009), 34(22), 2843-7, Language: Chinese, Database: MEDLINE

Cinnabar has been an important traditional Chinese medicine as a sedative and soporific agent for more than 2000 years. It is a naturally occurring mercuric sulfide and containing more than 96% mercuric sulfide (HgS). There are about 10% -30% Chinese patent medicines containing cinnabar according to the Pharmacopoeia of China (2005). It’s hard to deny that cinnabar has therapeutic effect in clinic practice. However, cinnabar's extraordinary high containing mercury makes people hesitate to use. Furthermore, the abuse of cinnabar, which caused intoxication cases, has been reported occasionally. The safety and toxicity of cinnabar has been debated for centuries. The exact mechanism of cinnabar is still largely unknown. The present review focused on researches about cinnabar's mechanisms of pharmacological and toxicological effects since 2000.

~0 Citings
2898. Zebrafish--useful model for pharmacodynamics and toxicity screening of traditional Chinese medicine

By Liang Aihua

Zebrafish has been an important model for developmental and genetic studies. In the past ten years, it has also been widely used for environmental toxicity monitoring, additive effect and toxicity of many chemical materials including heavy metals, pesticides, halogenated aromatic hydrocarbon compounds and other carcinogens. Zebrafish is increasingly used in drug screening and toxicological studies in recent years with the advantage of high-throughput handling. It is a useful model of choice for in vivo pharmacodynamic screening and toxicity investigation of Chinese medicine and it has a wide application prospect in the field of new herbal-drug research.

~0 Citings

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By Li Jia; Merl Man Yee; Saif Muhammad Wasif

Majority of pancreatic cancers are unresectable upon diagnosis. Palliative chemotherapy is usually administered in an attempt of prolonging survival potentially and providing quality of life. Gemcitabine has been the solo player in the field of pancreatic cancer treatment after replacing 5-FU since 1997. How to treat a patient with advanced pancreatic cancer failing to respond or progressing after gemcitabine is a true challenge. No established second-line treatment exists yet. Chinese herbal medicine PHY906 provides cytoprotective effects without dampening the anti-tumor activity of chemotherapeutic agents. Several combinations such as S-1/gemcitabine, GTX, FOLFIRINOX showed promising results in retrospective studies. Among single agents, erlotinib and Src inhibitor failed to show seemingly benefit, while abraxane and pemetrexed deserve further investigation.

~0 Citings

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2900. Traditional chinese medicine: an update on clinical evidence

By Xue Charlie C L; Zhang Anthony L; Greenwood Kenneth M; Lin Vivian; Story David F
From Journal of alternative and complementary medicine (New York, N.Y.) (2010), 16(3), 301-12, Language: English, Database: MEDLINE

BACKGROUND: As an alternative medical system, Traditional Chinese Medicine (TCM) has been increasingly used over the last several decades. Such a consumer-driven development has resulted in introduction of education programs for practitioner training, development of product and practitioner regulation systems, and generation of an increasing interest in research. Significant efforts have been made in validating the quality, effectiveness, and safety of TCM interventions evidenced by a growing number of published trials and systematic reviews. Commonly, the results of these studies were inconclusive due to the lack of quality and quantity of the trials to answer specific and answerable clinical questions. OBJECTIVES: The methodology of a randomized clinical trial (RCT) is not free from bias, and the unique features of TCM (such as individualization and holism) further complicate effective execution of RCTs in TCM therapies. Thus, data from limited RCTs and systematic reviews need to be interpreted with great caution. Nevertheless, until new and specific methodology is developed that can adequately address these methodology challenges for RCTs in TCM, evidence from quality RCTs and systematic reviews still holds the credibility of TCM in the scientific community. CONCLUSIONS: This article summarizes studies on TCM utilization, and regulatory and educational development with a focus on updating the TCM clinical evidence from RCTs and systematic reviews over the last decade. The key issues and challenges associated with evidence-based TCM developments are also explored.

~0 Citings

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2901. Overview of developmental and reproductive toxicity research in China: history, funding mechanisms, and frontiers of the research

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Reproductive and developmental toxicology (DART) is the discipline that deals with adverse effects on male and female resulting from exposures to harmful chemical and physical agents. DART research in China boasted a long history, but presently has fallen behind the western world in education and research. The funding mechanisms for DART research in China were similar to that for other toxicological disciplines, and the funding has come from research grants and fellowships provided by national, ministerial, and provincial institutions. Finally, the frontiers of DART research in China could be summarized as follows: (1) use of model animals such as the zebrafish and roundworm, and use of cutting-edge techniques such as stem cell culture, as well as transgenic, metabonomic, and virtual screening to study the mechanisms of developmental toxicity for some important toxicants in China; (2) use of model animals and other lower-level sentinel organisms to evaluate and monitor the developmental toxicological risk of environmental chemicals or pollutants; (3) epidemiological studies of some important reproductive hazards; (4) in-depth studying of the reproductive and developmental toxicity of some important environmental chemicals; and (5) evaluation and study of the reproductive and developmental toxicity of traditional Chinese medicines.
The existing efficacy evaluation for coronary heart disease (CHD) angina pectoris does not demonstrate the characteristics and advantages of Chinese medicine (CM), so a new system of efficacy evaluation which can scientifically and systematically reflect the specific features of CM needs to be urgently set up. Based on wide references of efficacy evaluations of CHD angina pectoris from our country and abroad, and considering the general acceptance by academic circles and demonstration of the characteristics of CM, this paper tries to set up a new index system of efficacy evaluation, combining both disease and syndrome differentiation for CHD angina pectoris. This paper also offers some explorations based on the results of clinical trials. The system is composed of six aspects, including efficacy evaluation of "disease", syndrome factors and main endpoints (the incidence of important clinical events), as well as patient reported outcomes, safety evaluation and medical economics.

~0 Citings

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2905. The application of assessment of the quality of life in the clinical efficacy evaluation system and the selection of questionnaires of Chinese medicine treating tumors

By You Jie
From Chinese journal of integrative medicine (2010), 16(1), 11-2, Language: English, Database: MEDLINE

~0 Citings

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2906. Could we use clinical benefit to evaluate the effects of Chinese medicine on the treatment of cancer?

By Li Ping-ping
From Chinese journal of integrative medicine (2010), 16(1), 9-10, Language: English, Database: MEDLINE

~0 Citings

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2907. The importance of the differentiating syndromes for the efficacy assessment of Chinese medicine in the treatment of cancer

By Wu Wan-yin
From Chinese journal of integrative medicine (2010), 16(1), 6-8, Language: English, Database: MEDLINE

~0 Citings

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2908. Exploration of key points in evaluation criteria of Chinese medicine in the treatment of cancer

By Yang Yu-fei; Liao Juan
From Chinese journal of integrative medicine (2010), 16(1), 3-5, Language: English, Database: MEDLINE

~0 Citings

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2909. Stability of active ingredients of traditional Chinese medicine (TCM)

By Meng Wang; Xiaoliang Ren; Xiumei Gao; Vincieri Franco Francesco; Bilia Anna Rita
From Natural product communications (2009), 4(12), 1761-76, Language: English, Database: MEDLINE
Studies on stability of active ingredients are fundamental and critical for the rational development of Traditional Chinese Medicine (TCM) in view of its modernization and worldwide use. The stability of both active and marker constituents of plants used in TCM is reviewed for the first time. More than 100 papers, mostly written in Chinese, have been reviewed. Studies concerning plant constituents were analyzed according to their chemical classification of active ingredients. In addition, several crude drugs of animal origin are also reported. Stability of active ingredients is summarized during extraction and/or storage of the herbal drug preparations, and under stress conditions (pH, temperature, solvents, light, and humidity) and in the presence of preservatives, antioxidants, and metals.

~0 Citings

2910. Contemporary clinical research of traditional Chinese medicines for chronic hepatitis B in China: an analytical review

By Zhang Lingyi; Wang Guqi; Hou WeiHong; Li Ping; Dulin Andrea; Bonkovsky Herbert L
From Hepatology (Baltimore, Md.) (2010), 51(2), 690-8, Language: English, Database: MEDLINE

Chronic hepatitis B (CHB) is a major global health problem. In China, where about 120,000,000 persons are chronically infected, CHB has been treated for centuries with traditional Chinese medicines (TCMs). This review summarizes and meta-analyses the results of randomized controlled trials (RCTs) of TCM formulations reported in China in 1998-2008 for treatment of CHB. RCTs comparing either TCM formulations alone or in combination with interferon (IFN) or lamivudine (LAM) versus IFN or LAM were included. Chinese electronic databases were searched. The methodological quality of RCTs was assessed using the Jadad scale. TCMs had a greater beneficial effect (P = 0.0003) than IFN and a slightly better effect (P = 0.01) than LAM on the normalization of serum alanine aminotransferase. TCMs had a similar beneficial effect when compared with IFN or LAM for CHB on antiviral activity as evidenced by the loss of serum hepatitis B e antigen and hepatitis B virus (HBV) DNA. TCMs enhanced IFN and LAM antiviral activities and improvements of liver function. The quality of many studies was poor; reports often lacked information regarding methods of randomization or blinding and adverse events. Conclusion: Some TCMs seem effective as alternative remedies for patients with CHB, suggesting that further study of TCMs in the treatment of CHB is warranted, both in preclinical models of HBV infection and in higher quality RCTs worldwide.

~2 Citings


By Zhang Jing-Jing; Meng Qiong; Chang Wei; Wan Chong-Hua

With continued enhancements in cancer diagnosis and treatment, clinical assessments are deeper. More composite indicators are applied and evaluations are more "patient-centered", focusing on disease status and response to treatment, as well as the quality-of-life of patients as primary components, including the patients themselves, clinical staff, caregivers, and medical examinations, and other aspects of the evaluation. We reviewed the current research on the application and development of clinical assessment indicators for traditional Chinese medicine (TCM) and modern medicine, and explored its significance and the advancements in effective evaluations.

~0 Citings

2912. Pyrrolizidine alkaloids in medicinal plants of Mongolia, Nepal and Tibet

By Roeder E; Wiedenfeld H
From Die Pharmazie (2009), 64(11), 699-716, Language: English, Database: MEDLINE

Pyrrolizidine alkaloids (PAs) are widely distributed in many plant families. Most of them are hazardous for humans and domestic animals. PA also occur in many medicinal plants. This is of importance because in Western countries the use of plants or preparations of them is more and more increasing. Especially plants of the Traditional Chinese Medicine (TCM) have increased in popularity. Similarly, people are also focused on medicinal plants from other traditional medicines. Nowadays the Traditional Mongolian Medicine (TMM), the Traditional Nepalese Medicine (TNM), and the Tibetan System of Medicine (TSM) are becoming more and more of interest. In those countries application of those phytopharmaceutics is based on its traditional use but a scientific investigation—especially for possible toxic side-effects—is often missing. This paper gives an overview on traditionally used plants from Nepal, Mongolia and Tibet with respect to its content or its possible content of pyrrolizidine alkaloids.
2913. Chinese herbal medicines for chronic neck pain due to cervical degenerative disc disease

By Cui Xuejun; Trinh Kien; Wang Yong-Jun

From Cochrane database of systematic reviews (Online) (2010), (1), CD006556, Language: English, Database: MEDLINE

BACKGROUND: Chronic neck pain with radicular signs or symptoms is a common condition. Many patients use complementary and alternative medicine, including traditional Chinese medicine, to address their symptoms.

OBJECTIVES: To assess the efficacy of Chinese herbal medicines in treating chronic neck pain with radicular signs or symptoms.

SEARCH STRATEGY: We electronically searched CENTRAL (The Cochrane Library 2009, issue 3), MEDLINE, EMBASE, CINAHL and AMED (beginning to October 1, 2009), the Chinese Biomedical Database and related herbal medicine databases in Japan and South Korea (1979 to 2007). We also contacted content experts and handsearched a number of journals published in China.

SELECTION CRITERIA: We included randomized controlled trials with adults with a clinical diagnosis of cervical degenerative disc disease, cervical radiculopathy or myelopathy supported by appropriate radiological findings. The interventions were Chinese herbal medicines, defined as products derived from raw or refined plants or parts of plants, minerals and animals that are used for medicinal purposes in any form. The primary outcome was pain relief, measured with a visual analogue scale, numeric scale or other validated tool.

DATA COLLECTION AND ANALYSIS: The data were independently extracted and recorded by two review authors on a pre-developed form. Risk of bias and clinical relevance were assessed separately by two review authors using the twelve criteria and the five questions recommended by the Cochrane Back Review Group. Disagreements were resolved by consensus.

MAIN RESULTS: All four included studies were in Chinese; two of which were unpublished. Effect sizes were not clinically relevant and there was low quality evidence for all outcomes due to study limitations and sparse data (single studies). Two trials (680 participants) found that Compound Qishe Tablets relieved pain better in the short-term than either placebo or Jingfukang; one trial (60 participants) found that an oral herbal formula of Huangqi ((Radix Astragali) 18 g, Danshen (Radix Codonopsis) 9 g, Sanqi (Radix Notoginseng) 9 g, Chuanxiong (Rhizoma Chuanxiong) 12 g, Lujiao (Cornu Cervi Pantotrichum) 12 g, and Zhimu (Rhizoma Anemarrhaenae) 12 g) relieved pain better than Mobicox or Methylcobal and one trial (360 participants) showed that a topical herbal medicine, Compound Extractum Nucis Vomicae, relieved pain better than Diclofenac Diethylamine Emulgel.

AUTHORS' CONCLUSIONS: There is low quality evidence that an oral herbal medication, Compound Qishe Tablet, reduced pain more than placebo or Jingfukang and a topical herbal medicine, Compound Extractum Nucis Vomicae, reduced pain more than Diclofenac Diethylamine Emulgel. Further research is very likely to change both the effect size and our confidence in the results.

2914. Chronic pelvic pain

By Herbert Bettina

From Alternative therapies in health and medicine (2010), 16(1), 28-33, Language: English, Database: MEDLINE

Though there are myriad etiologies of CPP, common therapeutic targets include inflammation, somatic dysfunction, and psychological disturbances. Inflammation may be addressed not only with dietary changes including nutritional and botanical supplements but also with mind-body therapies. Somatic dysfunction may respond to manipulative therapies provided by osteopaths, naturopaths, chiropractors, and some physical therapists. Therapists may also offer visceral, craniosacral, myofascial, and other whole-body therapies, as can highly trained massage therapists and bodyworkers. Mental health care may be key in many cases. Integrative medicine heralds the return to a sense of the human being's intrinsic capacity for healing, incorporating the vitalism of many of the therapies' origins (traditional Chinese medicine, indigenous medicine, ayurveda, osteopathy, chiropractic, etc) with the gains made by a more reductionistic tradition. Given the complexity and wide variation of etiologies and symptoms of CPP, using an integrative approach may offer expanded therapeutic solutions. We must expand our capacity to listen to each patient—with ears, eyes, mind, heart, and hands. Each treatment plan may then be tailored to the unique history and perspective that lie within the individual. Doing so requires the essential elements of time, skill, and love.

2915. Progress in treatment of chronic heart failure in Western medicine and treatment strategies in traditional Chinese medicine
The concept of modern medicine in treating chronic heart failure (CHF) has changed markedly in recent years. To improve the quality of life and prolong life, the treatment goal is no longer just temporary improvement of symptoms, more importantly, is to prevent and delay the occurrence and development of ventricular remodeling. Long-term chronic over-activation of sympathetic system, renin-angiotensin-aldosterone system and other neuroendocrine factors promotes myocardial remodeling, increases myocardial injury and deteriorates cardiac function. Despite short-term use can significantly improve the blood flow dynamics, long-term use of beta-adrenergic receptor stimulators and phosphodiesterase inhibitors does not prolong life, but increases the rate of sudden death caused by cardiac arrhythmia. Angiotensin converting enzyme inhibitors and beta-blockers have become the preferred drugs in treating chronic heart failure. In fact, after long-term use, beta-blockers can significantly improve ventricular remodeling, enhance ventricular function and reduce the incidence of sudden death of patients with CHF. In traditional Chinese medicine practice, short-term use of drugs for warming yang and reinforcing qi can improve symptoms of CHF, but long-term use may have adverse effects, for these medicines can stimulate sympathetic system. Early treatment with medicines of cold and cool property may be more favorable to patients with CHF, except the advanced patients who need special intervention. Eliminating heat and nourishing yin may play more active role in controlling the occurrence and development of CHF. Drugs with good efficacy and value in treating CHF may be developed from the Chinese herbal medicines with eliminating heat and nourishing yin property.

~0 Citings

2916. Pay attention to insulin resistance in chronic liver diseases

By Ji Guang
From Zhong xi yi jie he xue bao = Journal of Chinese integrative medicine (2010), 8(1), 1-6, Language: Chinese, Database: MEDLINE

Insulin resistance exists in various chronic liver diseases such as fatty liver disease, liver cirrhosis, hepatitis, etc. Insulin resistance not only participates in the development of chronic liver diseases but also affects the efficacy of drug treatment. Paying more attention to diagnosis and treatment of insulin resistance will enhance the therapeutic effect and improve the prognosis of the patients. Traditional Chinese medicine has displayed its characteristics and advantage in treating insulin resistance. Investigation to chronic liver diseases based on lifestyle interference, exploration of the syndrome mechanism of insulin resistance, and scientific evaluation of the efficacy of Chinese herbal prescriptions will contribute to the research of traditional Chinese medicine in preventing and treating insulin resistance in chronic liver diseases.

~0 Citings

2917. Interactions between traditional Chinese medicines and Western therapeutics

By Chan Elena; Tan Marisela; Xin Jianni; Sudarsanam Sucha; Johnson Dale E
From Current opinion in drug discovery & development (2010), 13(1), 50-65, Language: English, Database: MEDLINE

Traditional Chinese medicine (TCM) is a holistic approach to health that attempts to bring the body, mind and spirit into harmony. TCM is an essential part of the healthcare system in several Asian countries, and is considered a complementary or alternative medical system in most Western countries. An integration of the traditional Chinese and Western systems of medicine has begun in multiple medical centers internationally, and there is increasing evidence that several herbs and combinations of herbs used in TCM impart important pharmacological effects. The number of databases and compilations of herbs, herbal formulations, phytochemical constituents and molecular targets is increasing, primarily because of the widespread use of TCM in combination with Western drugs. The continued popularity of herbal remedies worldwide suggests that evidence-based research in this field, as well as information regarding the potential efficacy and safety of phytochemical constituents in herbs and TCM formulations, are essential, particularly when TCM is used in combination with other drugs. Herb-drug interactions are similar to drug-drug interactions in terms of their effects on ADME properties. Improvements in the knowledge of the molecular targets and metabolic pathways, as well as of the synergistic and inhibitory effects associated with important phytochemicals from herbs and herbal formulations, will lead to the development of rational approaches for the safe combination of healthcare systems from different cultures.

~1 Citing
2918. Goji (Lycium barbarum and L. chinense): Phytochemistry, pharmacology and safety in the perspective of traditional uses and recent popularity

By Potterat Olivier
From Planta medica (2010), 76(1), 7-19, Language: English, Database: MEDLINE

Since the beginning of this century, Goji berries and juice are being sold as health food products in western countries and praised in advertisements and in the media for well-being and as an anti-aging remedy. The popularity of Goji products has rapidly grown over the last years thanks to efficient marketing strategies. Goji is a relatively new name given to Lycium barbarum and L. chinense, two close species with a long tradition of use as medicinal and food plants in East Asia, in particular in China. While only L. barbarum is officinal, the fruit (fructus Lycii) and the root bark (cortex Lycii radicis) of both species are used in the folk medicine. We review here the constituents, pharmacology, safety, and uses of L. barbarum and L. chinense with consideration to the different parts of the plant. Investigations of the fruit have focused on proteoglycans, known as "Lycium barbarum polysaccharides", which showed antioxidative properties and some interesting pharmacological activities in the context of age related diseases such as atherosclerosis and diabetes. As to the root bark, several compounds have demonstrated a hepatoprotective action as well as inhibitory effects on the rennin/angiotensin system which may support the traditional use for the treatment of hypertension. While there are no signs of toxicity of this plant, two cases of possible interaction with warfarin point to a potential risk of drug interaction. In view of the available pharmacological data and the long tradition of use in the traditional Chinese medicine, L. barbarum and L. chinense certainly deserve further investigation. However, clinical evidences and rigorous procedures for quality control are indispensable before any recommendation of use can be made for Goji products.

~2 Citings

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2919. Emerging role of resveratrol in the treatment of severe acute pancreatitis

By Jha Rajiv Kumar; Ma Qingyong; Sha Huanchen; Palikhe Muna
From Frontiers in bioscience (Scholar edition) (2010), 2168-75, Language: English, Database: MEDLINE

Severe acute pancreatitis (SAP) develops in 15-20% of patients with acute pancreatitis. The management of SAP is a challenging task owing to the fact that it can lead to morbid conditions like multiple organ failure and systemic inflammatory response syndrome, if left untreated. Resveratrol, a drug used in Chinese traditional medicine has shown potential to treat many symptoms of SAP due to its multiple physiological actions. It possesses anti-inflammatory and anti-oxidative properties, both of which are essential in SAP. NF-kappaB activation is a major source of pro-inflammatory mediators in SAP. Administration of resveratrol can inhibit NF-kappaB activity as well as reduce the concentrations of TNF-alpha, IL-6 and IL-1. It can also scavenge reactive oxygen species that are capable of extensive tissue damage. Furthermore, resveratrol also exhibits anti-apoptotic properties via regulation of apoptotic mediators such as Bax, Bcl-2, and caspase-3. It also plays a role in calcium regulation and alleviates SAP-induced histopathological distortions in the pancreas. These multi-faceted results support the use of resveratrol in SAP and mandate the need for extensive research on this molecule.

~0 Citings

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2920. Investigation of research method of fingerprint pharmacodynamics of traditional Chinese medicines

By Tao Jinhua; Di Liuqing; Wen Hongmei; Zhao Xiaoli; Shan Jinjun; Cai Baochang
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2009), 34(18), 2410-3, Language: Chinese, Database: MEDLINE

Fingerprinting techniques play an increasingly important role in the quality control standards of traditional Chinese medicines (TCM), research and establish the fingerprint about spectral-efficiency could improve the quality control of TCM. The necessity of the fingerprint pharmacodynamics research and the analysis and evaluation of the research methods in the existing literature at home and abroad were reviewed in this article. Combined with the author's laboratory research, we proposed the research methods of fingerprint pharmacodynamics of TCM and provided the basis for effectively promoting the the establishment and development of fingerprint pharmacodynamics of Chinese medicine compound preparations.

~0 Citings

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2921. Review of experimental study on treatment of lung cancer with traditional Chinese medicine
By Yang Dan; Tian Guoqing
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2009), 34(18), 2405-9, Language: Chinese, Database: MEDLINE

Lung cancer has been the leading cause of cancer death in the world. It is a health threat of human being. The clinical observations confirmed that there are some advantages by using traditional Chinese medicine (TCM) to treat lung cancer. TCM can improve symptoms and the quality of life, and extend lifespan of lung cancer patients as well. However, the specific mechanism of TCM treatment is unclear. Many scholars in the world have done a lot of research about the treatment of lung cancer with TCM. In this paper, the experimental study on treatment of lung cancer with TCM was reviewed over the past 10 years from the following aspects: inhibiting proliferation and inducing apoptosis of lung cancer cell, impact on the tumor cell matrix, inhibiting the angiogenesis and regulation the immune system. This review summarizes the research results in recent years and provides a reference for further study.

~0 Citings

2922. Current status, problems and countermeasures for properties theory of Chinese medicinal herbs
By Zhang Deqin; Gao Xuemin; Zhong Gansheng; Zhang Jianjun
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2009), 34(18), 2400-4, Language: Chinese, Database: MEDLINE

This research has analyzed the current status, problems for the properties theory of Chinese medicinal herbs. Proposed that the Chinese medicine literature research is a foundation, the research of properties theory of Chinese medicinal herbs should under the Chinese medicine theory instruction. It must use the modern scientific method to study and unify the Chinese medicine superiority, establish the standards and reveal the scientific essence of Chinese medicine property.

~0 Citings

2923. Progressive studies on toxity of Strychons nuxvomica
By Jia Xuanxuan; Li Wen; Li Junsong; Cai Baochang
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2009), 34(18), 2396-9, Language: Chinese, Database: MEDLINE

Strychons nuxvomica is widely used by clinic and individual owing to its officinal value. Since toxic dose and therapeutic dose are very close, the poisoning cases are reported frequently. In this review, based on the recent available papers published in the PubMed and CNKI about Strychons nuxvomica, a traditional Chinese herbal medicine, we present the major current approaches in the field of composition, toxicology, pharmacokinetics, decreasing toxicity and increasing efficacy, in order to guide the use of S. nuxvomica in the clinic.

~0 Citings

2924. Efficacy of traditional Chinese medicine for the management of constipation: a systematic review
By Lin Li-Wei; Fu Yuan-Tsung; Dunning Trisha; Zhang Anthony Lin; Ho Tien-Hui; Duke Maxine; Lo Sing Kai

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OBJECTIVES: The aim of this systematic review was to critically appraise published clinical trials designed to assess the effect of Traditional Chinese Medicine (TCM) on the management of constipation. METHODS: Databases searched included both English and non-English articles published in the Cochrane library, MEDLINE, CINAHL, AMED, EMBASE, China National Knowledge Infrastructure (CNKI), and the Chinese Electronic Periodical Services (CEPS). Studies reviewed included randomized controlled trials and controlled clinical trials. Methodological quality was assessed using the modified Jadad scale. RESULTS: One hundred and thirty-seven (137) studies met the inclusion criteria, of which 21 were high-quality trials (n = 2449). Eighteen (18) were Chinese herbal medicine (CHM) and 3 were acupuncture trials. The primary outcome measure was total effective rate. CHM was more effective than conventional medicines in eight trials. Of the 10 remaining CHM trials, 9 compared the study CHM with another CHM and the results were significant in 4 trials. The effective rate was significantly higher in the intervention group than in the placebo group in the last CHM study. One (1) of the three acupuncture trials compared acupuncture with a conventional medicine, one trial with Sennae folium, and one trial with deeper acupuncture on Tianshu (ST 25). The therapeutic effect in the treatment group was more effective than that in the control group in all three studies. CONCLUSIONS: TCM interventions appear to be useful to manage constipation. Significant positive results were found in 15 high-quality studies. However, only 21 of the 137 publications identified attained high Jadad scores. There was heterogeneity in diagnostic procedures and interventions among the studies. Outcome indicators were also different. Hence, the results should be interpreted cautiously.

~1 Citings

2925. A crash course in Chinese herbology for the psychopharmacological prescriber

By White Kathryn P
From Experimental and clinical psychopharmacology (2009), 17(6), 384-95, Language: English, Database: MEDLINE

Given the unparalleled popularity of botanicals in the United States, it is safe to say that almost every psychopharmacological prescriber will see some patients using Chinese herbs. Data show that between 36% and 42% of Americans use complementary and alternative medicine (CAM) each year and that persons suffering from depression and anxiety (67%) use CAM services significantly more than do their nonanxious and nondepressed counterparts (39%). This article gives an overview of several classical Chinese medical single herbs and herbal formulas commonly used for persons with psychiatric disorders and discusses some of the herbs that have the potential to interact with various pharmaceutical drugs. In addition, the article reviews scientific evidence and, at times, the lack thereof to validate the use of Chinese herbs and formulas in treating psychiatric conditions. Overall, the article seeks to prepare the pharmacological prescriber for working with patients concomitantly taking psychiatric medications and Chinese herbs.

~0 Citings

2926. Analysis on literature of clinical research on gastroesophageal reflux disease of integrative medicine

By Zhao Ying-Pan; Tang Xu-Dong; Li Zhen-Hua
From Zhongguo Zhong xi yi jie he za zhi Zhongguo Zhongxiyi jiehe zazhi = Chinese journal of integrated traditional and Western medicine / Zhongguo Zhong yi yan jiu yuan zhu ban (2009), 29(9), 860-4, Language: Chinese, Database: MEDLINE

~0 Citings

2927. Recent analytical approaches in quality control of traditional Chinese medicines--a review

By Jiang Yong; David Bruno; Tu Pengfei; Barbin Yves
From Analytica chimica acta (2010), 657(1), 9-18, Language: English, Database: MEDLINE
Traditional Chinese medicines (TCMs) are gaining more and more attention all over the world, due to their specific theory and long historical clinical practice. But the uncontrollable quality is a bottleneck for its modernization and globalization. This paper reviewed the recent analytical methods in the quality control of TCMs, including screening strategies of bioactive markers from TCMs through biochromatographic methods, the traditional chromatographic methods, DNA methods, as well as the spectroscopic methods, including FT-IR, NIR and NMR. The comprehensive methods, such as fingerprint and multi-component quantification are emphasized; hyphenated techniques, like HPLC-MS, GC-MS, CE-MS, LC-NMR, chemometric methods, and combination of chemical and biological methods, such as biofingerprint, metabolic fingerprint are now more and more widely used in TCMs. In a few word, the analysis and quality control of TCMs are moving towards an integrative and comprehensive direction, in order to better address the inherent holistic nature of TCMs.

~1 Citing

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2928. Bioactive components and pharmacological action of Wikstroemia indica (L.) C. A. Mey and its clinical application
By Li Yan-Min; Zhu Liang; Jiang Jian-Guo; Yang Li; Wang Ding-Yong
From Current pharmaceutical biotechnology (2009), 10(8), 743-52, Language: English, Database: MEDLINE

Wikstroemia indica (L.) C. A. Mey. is a member of family Thymelaeaceae and mainly distributes in middle and southeast part of China. As a traditional Chinese herb, this plant has long been employed as antipyretics, detoxicants, expectorants, vermifuges as well as aborticides in clinic practice. However, its use has mainly been based on empirical findings during hundreds and thousands of years. Recent studies indicated that W. indica contains abundant active components including flavonoids, biflavonoids, coumarins, lignans, volatile oils, polysaccharides etc. This paper provides a comprehensive review of pharmacological relevant compounds of W. indica that have been characterized to date, and introduce the research progresses supporting its pharmacological action and clinical application. Particular attention has been given to antibacterial, antiviral, anti-inflammatory, anti-tumor and antifertility effects. Some examples of clinical applications of prepared W. indica in treatment of various diseases are outlined. Finally, the trend and necessity of future research, such as quantification of individual constituents extracted from W. indica and the assessment of their pharmacological activities in human body are proposed.

~0 Citings

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2929. Ganoderma lucidum: a potent pharmacological macrofungus
By Sanodiya Bhagwan S; Thakur Gulab Singh; Baghel Rakesh K; Prasad G B K S; Bisen P S
From Current pharmaceutical biotechnology (2009), 10(8), 717-42, Language: English, Database: MEDLINE

Ganoderma lucidum (Ling Zhi) is a basidiomycete white rot macrofungus which has been used extensively as "the mushroom of immortality" in China, Japan, Korea and other Asian countries for 2000 years. A great deal of work has been carried out on therapeutic potential of Ganoderma lucidum. The basidiocarp, mycelia and spores of Ganoderma lucidum contain approximately 400 different bioactive compounds, which mainly include triterpenoids, polysaccharides, nucleotides, sterols, steroids, fatty acids, proteins/peptides and trace elements which has been reported to have a number of pharmacological effects including immunomodulation, anti-atherosclerotic, anti-inflammatory, analgesic, chemo-preventive, antitumor, chemo and radio protective, sleep promoting, antibacterial, antiviral (including anti-HIV), hypolipidemic, anti-fibrotic, hepatoprotective, anti-diabetic, anti-androgenic, anti-angiogenic, anti-herpetic, antioxidative and radical-scavenging, anti-aging, hypoglycemic, estrogenic activity and anti-ulcer properties. Ganoderma lucidum has now become recognized as an alternative adjuvant in the treatment of leukemia, carcinoma, hepatitis and diabetes. The macrofungus is very rare in nature rather not sufficient for commercial exploitation for vital therapeutic emergencies, therefore, the cultivation on solid substrates, stationary liquid medium or by submerged cultivation has become an essential aspect to meet the driving force towards the increasing demands in the international market. Present review focuses on the pharmacological aspects, cultivation methods and bioactive metabolites playing a significant role in various therapeutic applications.

~1 Citing

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2930. Advance in the anti-tumor mechanism of triptolide
By Luo Yongwei; Shi Chang; Liao Mingyang
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2009), 34(16), 2024-6, Language: Chinese, Database: MEDLINE

Triptolide, an epoxidated diterpene lactone compound separated from a traditional Chinese medicine, Tripterygium wilfordii Hook. f (TWHF), is responsible for the anti-tumor activity of TWHF with broad spectrum and high performance. The antitumor mechanism of triptolide locates in many fields, such as inducing apoptosis of tumor cell, interfering in the cell cycle, and suppressing angiogenesis. The advance in the anti-tumor mechanism of triptolide is described in the following review.

~0 Citings

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2931. Research advances of Huperzia serrata (Thunb.) Trev
By Guo Bin; Xu Lingling; Wei Yahui; Liu Chunzhao

Qiancengta, a traditional Chinese medicine produced from the whole plant of the club moss Huperzia serrata, has been used for a long history in China for treatment of a number of ailments, including contusions, strains, swellings, schizophrenia, myasthenia gravis and nerveorganophosphate poisoning. It has become known worldwide as a medicinal plant since Chinese scientists discovered huperzine A from it in the 1980s, which is reversible, potent and selective acetylcholine esterase (AChE) inhibitors by in vitro and in vivo pharmacological, and produce definite effects in the treatment of Alzheimer's disease. Now, Qiancengta is popular in all over the word for his famous pharmacological actions. For further exploitation this valuable resource under protection of nature environmental, its biological and ecological features, pharmaceutical active ingredients, artificial propagation and in vitro tissue culture, were reviewed, and the sustainable use of Qiancengta natural resource through plant biotechnology was put on the agenda.

~0 Citings

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2932. Chemical and pharmacological research for Sect. Aptera (gentiana)
By Mu Zhenqiang; Yu Yang; Gao Hao; Jiao Weihua; Yao Xinsheng

Sect. Aptera (Gentiana L.) is the plant origin of Traditional Chinese Medicine (TCM) "Qinjiao", which is used to treat rheumatism and pains with a long history. The plants of Sect. Aptera mainly contain iridoids, triterpenes and steroids, and possess anti-inflammatory, analgesia, stomach invigorate and bacteria inhibitory effects, etc. Herein, we reviewed the advances of chemical and pharmacological investigations of Sect. Aptera for further research.

~0 Citings

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2933. Mechanisms of therapeutic effects of rhubarb on gut origin sepsis
By Chen De-chang; Wang Lu
From Chinese journal of traumatology = Zhonghua chuang shang za zhi / Chinese Medical Association (2009), 12(6), 365-9, Language: English, Database: MEDLINE
It is proposed that gut-liver-lung axis plays an important role in the pathophysiologic development of the critical illness, and it induces excessive inflammatory response in vivo and multiple organ dysfunction syndrome. The mechanisms of therapeutic effects of rhubarb on critical patients are studied based on the theory of Chinese traditional medicine. Researches demonstrate that rhubarb can be used to protect gut barrier, maintain intestinal micro-ecological environment and prevent bacterial translocation. It also can be used to inhibit the release of inflammatory mediators by liver inflammatory-effector cells, reduce inflammatory reaction in the liver and protect hepatic cell functions. Furthermore, rhubarb can be used to reduce pulmonary vascular permeability and extenuate pulmonary edema, inhibit the release of neutrophil myeloperoxidase, and lower the level of inflammatory response and decrease inflammatory mediators in circulation. The above results indicate that rhubarb may interrupt or partly interrupt the gut-liver-lung axis after trauma and reduce the intensity of systemic inflammatory response syndrome. Therefore, rhubarb may obviously lower the incidence of multiple organ dysfunction syndrome and be used to prevent and treat systemic inflammatory response syndrome and multiple organ dysfunction syndrome after trauma.

2934. Xenobiotic-sensing nuclear receptors CAR and PXR as drug targets in cholestatic liver disease
By Kakizaki Satoru; Takizawa Daichi; Tojima Hiroki; Yamazaki Yuichi; Mori Masatomo
From Current drug targets (2009), 10(11), 1156-1163, Language: English, Database: MEDLINE
Cholestasis results in the intrahepatic retention of cytotoxic bile acid and it can thus lead to liver injury and/or liver fibrosis. Cholestatic liver damage is counteracted by a variety of intrinsic hepatoprotective mechanisms including a complex network of drug metabolizing enzymes and transporters. During the last decade, much progress has been made in dissecting the mechanisms which regulate the hepatic xeno- and endobiotic metabolism by nuclear receptors. The xenobiotic receptors CAR and PXR are two important members of the NR1I nuclear receptor family. They function as sensors of toxic byproducts derived from the endogenous metabolism and of exogenous chemicals, in order to enhance their elimination. Ligands for both receptors, including phenobarbital, have already been used to treat cholestatic liver diseases before the mechanisms of these receptors were revealed. Furthermore, Yin Zhi Huang, a traditional Chinese herbal medicine, which has been used to prevent and treat neonatal jaundice, was identified to be a CAR ligand which also accelerates bilirubin clearance. Therefore, CAR and PXR have a protective effect on cholestasis by activating both detoxification enzymes and transporters. As a result, novel compounds targeting CAR and PXR with specific effects and fewer side effects will therefore be useful for the treatment of cholestatic liver diseases. This article will review the current knowledge on xenobiotic-sensing nuclear receptors CAR and PXR, while also discussing their potential role in the treatment of cholestatic liver diseases.

2935. Research progress on mechanism of delaying senility of Chinese materia medica in recent years
By Gao Huili; Wang Danqiao
Recently investigating mechanisms on delaying aging of traditional Chinese medicine (TCM) and discovering high effective related medicines have been become hot spot and have achieved some progress. This review comprehensively analyzed the mechanism of TCM on delaying senility in recent years. The modern researches have demonstrated that Chinese materia medica and compound formulas can retard aging process by anti-oxidant activity of free radical, modulating metabolism of neuroendocrine, balancing immunological function, prolonging telomere length and promoting telomerase activity in cells, anti-DNA damage of cells, and controlling expression of gene and protein involved in cell proliferation.

2936. Research on compatibility chemistry of acid-alkaline pair medicines in formulas of traditional Chinese medicine
By Pei Miaorong; Duan Xiujun; Pei Xiangping; Xuan Chunsheng; Wang Xiaoying; Zhao Lina; Zhang Shurong; Liu Bingchen; Wang Shimin
Compatibility chemistry of acid-alkaline pair medicines in formulas of traditional Chinese medicine (TCM) is an important research field which should merit to pay attention. The ideas and methods in prescription compatibility research on formulas containing alkaline-acid pair medicines were summarized from the aspect of chemical groups of alkaline and acid ingredients; the research results were introduced and analyzed; the research meaning was elaborated; and the expectation of the field was viewed.

~0 Citings

2937. What's new in alternative therapies for asthmatic children?
By Kealoha May K

Nurses require current information about popular complementary and alternative medicine for pediatric asthma. This integrative review searched scientific literature in PubMed and WEB of Science from 2004 to 2009 via key terms: asthma complementary medicine, nursing complementary pediatric asthma, asthma herbal, and herbal pediatric asthma. Nine journal articles met the inclusion criteria of containing data collection and analysis for biologically based therapies for pediatric asthma. Evidenced-based research on this focus topic is still in its initial stages. Two themes of maximizing the diet and augmenting conventional therapy with Traditional Chinese Medicine may serve as conduits of patient education.

~1 Citing

2938. Technology for improving the bioavailability of small molecules extracted from traditional Chinese medicines
By Zhang WenJun; Yang ShenShen; He HaiBin; Liu Cong; Chen Wei; Tang Xing
From Expert opinion on drug delivery (2009), 6(11), 1247-59, Language: English, Database: MEDLINE

Evidence that small molecules extracted from traditional Chinese medicines (TCMs) have beneficial effects on health is increasingly being reported in the scientific literature and these compounds are now widely recognized as potential therapeutic drugs. There have been several detailed studies of the absorption, distribution, metabolism and excretion of these compounds in rats and humans. However, some active components have low bioavailability owing to their unsuitable physicochemical and biopharmaceutical characteristics, resulting in differences in vivo. The main problem in using natural products as a source of pharmaceutical lead compounds is the need to improve the bioavailability of these compounds. This review presents and discusses the current methods used for improvement and their impact on the bioavailability of some new pharmaceutical lead compounds from TCMs.

~0 Citings

2939. Progress of the application of Chinese medicine in the hemodialysis treatment
By Gao Jun
From Zhongguo Zhong xi yi jie he za zhi Zhongguo Zhongxiyi jiehe zazhi = Chinese journal of integrated traditional and Western medicine / Zhongguo Zhong yi xi yie he xue hui, Zhongguo Zhong yi yan jiu yuan zhu ban (2009), 29(8), 763-6, Language: Chinese, Database: MEDLINE

~0 Citings

2940. Systematic review of Chinese herbal medicine for functional constipation
By Cheng Chung-Wah; Bian Zhao-Xiang; Wu Tai-Xiang
From World journal of gastroenterology : WJG (2009), 15(39), 4886-95, Language: English, Database: MEDLINE
Constipation is a common gastrointestinal complaint in clinical practice, affecting an estimated 27% of the population. Many patients are disappointed by current conventional treatments and, therefore, seek help from complementary and alternative medicine (CAM). Traditional Chinese medicine, is the most important part of CAM and has been practiced for treating diseases and promoting the health of humans for thousands of years, and has become a popular alternative choice. Although there are many Chinese herbal medicine (CHM) interventions available, and some have been verified by clinical trials, their efficacy and safety are still questioned by both patients and health care providers worldwide. The purposes of this review are, first, to appraise the qualities of individual study designs in the new Cochrane approach. Second, the benefits of individual CHM interventions or individual types of CHM intervention for the treatment of functional constipation are analyzed. Finally, valid and comprehensive conclusions are drawn, if applicable, in order to make clinical recommendations.

~3 Citings

2941. An overview of CAM: components and clinical uses
By Kiefer David; Pitluck Jessica; Klunk Kathryn

Complementary and alternative medicine (CAM), more recently known as integrative health or integrative medicine, is a diverse field comprising numerous treatments and practitioners of various levels of training. This review defines several of the main CAM modalities and reviews some of the research relevant to their clinical application. The goal is to provide healthcare providers with a basic understanding of CAM to start the incorporation of proven treatments into their clinical practice as well as guide them to working with CAM providers; ultimately, such knowledge is a fundamental part of a collaborative approach to optimal patient health and wellness.

~1 Citing

2942. Berberine and Coptidis rhizoma as novel antineoplastic agents: a review of traditional use and biomedical investigations
By Tang Jun; Feng Yibin; Tsao Saiwah; Wang Ning; Curtain Robert; Wang Youwei
From Journal of ethnopharmacology (2009), 126(1), 5-17, Language: English, Database: MEDLINE

ETHNOPHARMACOLOGICAL RELEVANCE: Coptidis rhizoma (huanglian) and its major component, berberine, have drawn extensive attention toward their antineoplastic effects in the recent years. The antineoplastic effects are related to the Chinese Medicine (CM) properties of huanglian in treating diseases by removing damp-heat and purging fire and counteracting toxicity. AIM OF THE REVIEW: To trace the long history of the traditional use of huanglian from folk medicines, especially from Chinese medicine, to recent pharmacological studies of huanglian and berberine, with an emphasis on their antineoplastic effects and the promise as novel antineoplastic agents. METHODS: A total of seven databases were extensively searched for literature research. The terms and keywords for searching included huanglian, berberine, Coptis, Coptidis rhizoma, anticancer, anti-invasion, antimetastasis and mechanism. The papers including ours with studies on anticancer and mechanism, pharmacology and toxicology of huanglian and/or berberine were focused. RESULTS: In view of traditional use, the anticancer effects of huanglian can be ascribed to its CM trait by removing damp-heat, fire and toxicity. From modern biomedical studies, anticancer effects have been demonstrated in both huanglian and berberine. The underlying molecular mechanisms involve cell-cycle arrest, apoptosis induction and anti-inflammation. Berberine is an essential anticancer compound in huanglian. In some studies, the use of huanglian was shown to be more effective and beneficial than the use of berberine alone. The presence of other protobberine-type alkaloids in huanglian might give synergistic effects for the anticancer effects. Berberine also demonstrates effects of antiangiogenesis, anti-invasion and anti-metastasis in some cancer cell lines, however, more investigations are required to unravel the underlying mechanisms involved. CONCLUSIONS: The modern evidences of treating cancer with huanglian and berberine have a strong linkage with traditional concept and rules of using huanglian in CM practice. As anticancer candidates with low toxicity, berberine and its altered structure, as well as huanglian and its formulae, will attract scientists to pursue the potential anticancer effects and the mechanisms by using technologies of genomics, proteomics and other advanced approaches. On the other hand, relatively few in vivo studies have been conducted on anticancer effects of huanglian and berberine. The clinical application of berberine or huanglian as novel cancer therapeutic agents requires in vivo validations and further investigations of their anticancer mechanisms.

~2 Citings
2943. Quality and safety of Chinese herbal medicines guided by a systems biology perspective

By Wang Jiangshan; van de Heijden Rob; Spruit Shannon; Hankermeier Thomas; Chan Kelvin; van der Greef Jan; Xu Guowang; Wang Mei

From Journal of ethnopharmacology (2009), 126(1), 31-41, Language: English, Database: MEDLINE

Chinese herbal medicines, often referred as Chinese materia medica (CMM), are comprised of a complex multicomponent nature. The activities are aimed at the system level via interactions with a multitude of targets in the human body. This review aims at the toxicity aspects of CMM and its preparations at the different steps of production; harvesting, processing and the final formulation. The historic perspective and today's issues of the safety of CMM are introduced briefly, followed by the descriptions of the toxic CMM in the current Chinese Pharmacopoeia (2005). Subsequently, several aspects of safety are illustrated using a typical example of a toxic CMM, Aconitum roots, and some recent findings of our own research are included to illustrate that proper processing and multi-herbs formulation can reduce the level of toxic components. This also explains that in CMM, some herbs, such as Aconitum, Ephedra species are never used as single herb for intervention and that aconite is only used when it is processed and in combination with specific matched other herbs. The formulation principle of multi-herbs intervention strategy is a systems approach for the treatment and prevention of disease. In this light, the role of systems toxicology in the safety and quality of Chinese herbal medicine is proposed as a promising method. Moreover the principles of practiced-based and evidence-based research are discussed from a symbiotic perspective.

~0 Citings

2944. Aconitum in traditional Chinese medicine: a valuable drug or an unpredictable risk?

By Singhuber Judith; Zhu Ming; Prinz Sonja; Kopp Brigitte

From Journal of ethnopharmacology (2009), 126(1), 18-30, Language: English, Database: MEDLINE

Aconitum species have been used in China as an essential drug in Traditional Chinese Medicine (TCM) for 2000 years. Reviewing the clinical application of Aconitum, their pharmacological effects, toxicity and detoxifying measures, herb-herb interactions, clinical taboos, famous herbal formulas, traditional and current herbal processing methods based upon a wide range of literature investigations serve as a case study to explore the multidisciplinary implications of botanicals used in TCM. The toxicological risk of improper usage of Aconitum remains very high, especially in countries like China, India and Japan. The toxicity of Aconitum mainly derives from the diester diterpene alkaloids (DDAs) including aconitine (AC), mesaconitine (MA) and hyaconitine (HA). They can be decomposed into less or non-toxic derivatives through Chinese traditional processing methods (Paozhi), which play an essential role in detoxification. Using Paozhi, the three main forms of processed aconite -- yanfuzi, heishunpian and baifupian -- can be obtained (CPCommission, 2005). Moreover, some new processing techniques have been developed in China such as pressure-steaming. The current development of fingerprint assays, in particular HPLC, has set a good basis to conduct an appropriate quality control for TCM crude herbs and their ready-made products. Therefore, a stipulation for a maximum level of DDA content of Aconitum is highly desirable in order to guarantee the clinical safety and its low toxicity in decoctions. Newly developed HPLC methods have made the accurate and simultaneous determination and quantification of DDA content interesting.

~2 Citings

2945. Are traditional Chinese medicine theories of normal delivery supported by evidence-based medicine?

By Hongyu Zhang

From Midwifery today with international midwife (2009), (91), 32-3, Language: English, Database: MEDLINE

~0 Citings

2946. Traditional Chinese medicinal herbs for the treatment of idiopathic chronic fatigue and chronic fatigue syndrome

By Adams Denise; Wu Taixiang; Yang Xunzhe; Tai Shusheng; Vohra Sunita

From Cochrane database of systematic reviews (Online) (2009), (4), CD006348, Language: English, Database: MEDLINE
BACKGROUND: Chronic fatigue is increasingly common. Conventional medical care is limited in treating chronic fatigue, leading some patients to use traditional Chinese medicine therapies, including herbal medicine.

OBJECTIVES: To assess the effectiveness of traditional Chinese medicine herbal products in treating idiopathic chronic fatigue and chronic fatigue syndrome.


SELECTION CRITERIA: Selection criteria included published or unpublished randomized controlled trials (RCTs) of participants diagnosed with idiopathic chronic fatigue or chronic fatigue syndrome comparing traditional Chinese medicinal herbs with placebo, conventional standard of care (SOC), or no treatment/wait lists. The outcome of interest was fatigue.

DATA COLLECTION AND ANALYSIS: 13 databases were searched for RCTs investigating TCM herbal products for the treatment of chronic fatigue. Over 2400 references were located. Studies were screened and assessed for inclusion criteria by two authors.

MAIN RESULTS: No studies that met all inclusion criteria were identified.

AUTHORS’ CONCLUSIONS: Although studies examining the use of TCM herbal products for chronic fatigue were located, methodologic limitations resulted in the exclusion of all studies. Of note, many of the studies labelled as RCTs and conducted in China did not utilize rigorous randomization procedures. Improvements in methodology in future studies is required for meaningful synthesis of data.

~2 Citings

2947. Chinese herbal medicines for esophageal cancer

By Wei Xin; Chen Zhiyu; Yang Xiaoyan; Wu Taixiang
From Cochrane database of systematic reviews (Online) (2009), (4), CD004520, Language: English, Database: MEDLINE

BACKGROUND: Esophageal cancer is the seventh leading cause of cancer death worldwide. Traditional Chinese herbal medicines are sometimes used as an adjunct to radiotherapy or chemotherapy for this type of cancer.

OBJECTIVES: To assess the efficacy and possible adverse effects of the addition of Chinese herbal medicines to treatment with radiotherapy or chemotherapy for esophageal cancer.

SEARCH STRATEGY: We searched the Cochrane Upper Gastrointestinal and Pancreatic Diseases Group Trials Register, The Cochrane Library, MEDLINE, EMBASE, AMED (Allied and Complementary Medicine Database), CBM (Chinese Biomedical Database), China National Knowledge Infrastructure, the Chinese Cochrane Centre Controlled Trials Register and CISCOM (The Research Council for Complementary Medicine) (up to 10 July, 2008). Databases of ongoing trials, the Internet and reference lists were also searched.

SELECTION CRITERIA: Randomised controlled trials comparing the use of radiotherapy or chemotherapy with and without the addition of Chinese herbal medicines.

DATA COLLECTION AND ANALYSIS: At least two review authors extracted data and assessed trial quality.

MAIN RESULTS: We identified 43 trials which claimed to use random allocation. The first authors of all the RCTs we initially identified were contacted by telephone and we discovered that the authors had misunderstood the randomisation procedure. Using this new information, we reassigned all the identified RCTs as non-randomised trials.

AUTHORS’ CONCLUSIONS: We were unable to find any evidence from RCTs on the effectiveness of TCM in the treatment of esophageal cancer. New trials should be carried out and we recommend that they are large scaled, correctly randomised and that the assessors of the results are blinded to the conditions of allocation.

~0 Citings

2948. Comments on serious anaphylaxis caused by nine Chinese herbal injections used to treat common colds and upper respiratory tract infections

By Ji Kunmei; Chen Jiajie; Li Meng; Liu Zhigang; Xia Lixin; Wang Chunbo; Zhan Zhengke; Wu Xuli
From Regulatory toxicology and pharmacology : RTP (2009), 55(2), 134-8, Language: English, Database: MEDLINE

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Reports describing severe allergic shock and fatality following treatment of a common cold or upper respiratory tract infection (URTI) with a Chinese herbal injection were collected. Our analysis of the risks associated with this treatment suggested that the potential risk of serious, or even lethal, anaphylaxis should preclude its use in treating common colds and URTIs. In light of our findings herein, we propose the following five suggestions for improving the clinical safety of delivering Chinese herbal injections as medical treatments. First, Chinese herbal injections should not be delivered in the clinic to treat patients in accordance with Bian zheng lun zhi (broad-spectrum application based on holistic Traditional Chinese Medicine (TCM) theory and methodology), but rather they should be administered to target specific indicated disease processes. Second, Chinese herbal injection indications should be based on the results of double-blind randomized controlled clinical trials. Third, Chinese herbal injections should be used only in cases involving severe disease or to rescue patients in critical condition; they should not be used to treat mild, relatively innocuous diseases, such as common colds and upper respiratory tract infections, given the risk of doing harm. Fourth, Chinese herbal injection formulas should include materials from only a single or a small number of plant sources in known quantities. Fifth, more studies examining the toxicology and allergenic potential of Chinese herbal injections are needed.

~0 Citings

2949. A systematic review of treating Helicobacter pylori infection with Traditional Chinese Medicine

By Lin Jiang; Huang Wei-Wen
From World journal of gastroenterology : WJG (2009), 15(37), 4715-9, Language: English, Database: MEDLINE

AIM: To evaluate the efficacy and safety of Traditional Chinese Medicine (TCM) in the treatment of Helicobacter pylori (H. pylori) infection. METHODS: We electronically and manually searched electronic databases, references lists and conferences compilations, and included all randomized clinical trials comparing the treatment of H. pylori using TCM with proton pump inhibitor or colloidal bismuth subcitrate-based triple therapy as controls. The Jadad score was used to assess trial quality, H. pylori eradication rate and the incidence of side effects were taken as outcome measurements, and heterogeneity analysis, meta-analysis and funnel plot analysis were conducted. RESULTS: Sixteen trials were included. The Jadad scores of all the trials were not more than 2. Clinical heterogeneity and substantial statistical heterogeneity existed among the trials (P = 0.001, I(2) = 59%) and meta-analysis was not conducted. The average eradication rates following TCM and triple therapy were 72% and 78% and the incidence of side effects were 2% and 29%, respectively. The funnel plot was obviously asymmetric. CONCLUSION: Available evidence is not convincing enough to show that TCM has the same efficacy as triple therapy in H. pylori treatment. TCM may be safer than triple therapy. TCM should not be recommended as monotherapy in H. pylori infection.

~0 Citings

2950. Application of thermoplastic elastomer in hot-melt pressure sensitive adhesives for transdermal drug delivery

By Yan Xiaoping; Zheng Rui; Guan Shijie; Yi Bowen
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2009), 34(12), 1612-4, Language: Chinese, Database: MEDLINE

Development of drug dosage forms to a great extent depends on the development of drug auxiliary materials. The development of a new type of polymeric drug auxiliary materials will bring on the developing of a novel dosage forms technology and a flood of new drug dosage forms. Thermoplastic elastomer is a new type of drug polymeric auxiliary materials, at present, which has a broad application in the field of hot-melt pressure sensitive adhesives. This review mainly discussed a new transdermal Chinese drug delivery system, including matrix composition of the formula, modified thermoplastic elastomer for hot-melt pressure sensitive adhesives and their development prospects in the traditional Chinese drug delivery system. It suggested that thermoplastic elastomer of hot-melt pressure sensitive adhesives has broad development prospects in the field of the transdermal drug delivery system for traditional Chinese medicine.

~0 Citings

2951. Advances in herbal volatile oil and aromatic herbs

By Huang Luosheng; Gu Yanfei; Li Hong
The herbal volatile oil and aromatic herbs are traditional Chinese medicine which have some unique characteristics of volatilility, special smell, complicated chemical constituents and the water insoluble property. The aromatic herbs from different sources have biodiversity effects on the cardiovascular, central nervous, respiratory and gastrointestinal system. They also play important roles in antibiosis, anti-inflammation, anticancer, antivirus and absorption enhancement, etc. In recent years, the herbal volatile oil and aromatic herbs have been widely reported to show broad prospect in medicinal application. In order to support various developmental works, the latest research results on herbal volatile oil and aromatic herbs are reviewed in this article in respect of chemical constituents, pharmacological action, and absorption enhancement.

~0 Citings

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2952. Evidence from the Cochrane Collaboration for Traditional Chinese Medicine therapies

By Manheimer Eric; Wieland Susan; Kimbrough Elizabeth; Cheng Ker; Berman Brian M

BACKGROUND: The Cochrane Collaboration, an international not-for-profit organization that prepares and maintains systematic reviews of randomized trials of health care therapies, has produced reviews summarizing much of the evidence on Traditional Chinese Medicine (TCM). Our objective was to review the evidence base according to Cochrane systematic reviews. METHODS: In order to detect reviews focusing on TCM, we searched the titles and abstracts of all reviews in Issue 4, 2008 of the Cochrane Database of Systematic Reviews. For each review, we extracted data on the number of trials included and the total number of participants. We provided an indication of the strength of the review findings by assessing the reviewers' abstract conclusions statement. We supplemented our assessment of the abstract conclusions with a list of the comparisons and outcomes showing statistically significant meta-analyses results. RESULTS: We identified 70 Cochrane systematic reviews of TCM, primarily acupuncture (n = 26) and Chinese herbal medicine (n = 42), and 1 each of moxibustion and t'ai chi. Nineteen (19) of 26 acupuncture reviews and 22/42 herbal medicine reviews concluded that there was not enough good quality trial evidence to make any conclusion about the efficacy of the evaluated treatment, while the remaining 7 acupuncture and 20 herbal medicine reviews and each of the moxibustion and t'ai chi reviews indicated a suggestion of benefit, which was qualified by a caveat about the poor quality and quantity of studies. Most reviews included many distinct interventions, controls, outcomes, and populations, and a large number of different comparisons were made, each with a distinct forest plot. CONCLUSIONS: Most Cochrane systematic reviews of TCM are inconclusive, due specifically to the poor methodology and heterogeneity of the studies reviewed. Some systematic reviews provide preliminary evidence of Chinese medicine's benefits to certain patient populations, underscoring the importance and appropriateness of further research. These preliminary findings should be considered tentative and need to be confirmed with rigorous randomized controlled trials.

~2 Citings

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2953. Traditional Chinese Medicines in the treatment of hepatocellular cancers: a systematic review and meta-analysis

By Wu Ping; Dugoua Jean Jacques; Eyawo Oghenowede; Mills Edward J

BACKGROUND: Liver cancer is a common malignancy with a high mortality rate. Given the poor prognosis associated with this cancer, many patients seek additional therapies that may improve quality of life or survival. Several Traditional Chinese Medicines (TCM) have been evaluated in clinical trials, but little is known about them outside of China. METHODS: We searched independently and in duplicate 8 electronic databases, including 2 Chinese language databases, until February 2009. We included any randomized clinical trials (RCT) evaluating a TCM oral preparation for the treatment of hepatocellular cancers. We abstracted data on survival, tumor response, and performance scores. We conducted a random-effects meta-analysis and applied a meta-regression analysis. RESULTS: We included 45 RCTs (n = 3,236). All studies employed an active control group. In general, the reporting of methodological issues was poor. We analyzed data from 37 trials reporting on complete response effects score (Relative Risk [RR] of 1.26 (95 CI, 1.04-1.52, P = 0.01, I2 = 0%, P = 0.99). Products containing ginseng, astragalus and mylabris had a larger treatment effect (OR 1.34, 95% CI, 1.04-1.71, P = 0.01) than the pooled broad estimate, also the case for astragalus-based treatments (OR 1.35, 95% CI, 1.04-1.71, P = 0.048). We examined survival rates and pooled 15 studies reporting on 6 month outcomes (RR 1.10, 95% CI, 1.04-1.15, P = 0.0001, I2 = 0%, P = 0.60). This effect was consistent at other prospective dates, including 12 months (22 trials, RR 1.26, 95% CI, 1.17-1.36, P = < 0.0001, I2 = 7%, P = 0.36), 24 months (15 trials, 1.72, 95% CI, 1.40-2.03, P = < 0.0001, I2 = 0%, P = 0.75); and, at 36 months (8 trials, RR 2.40, 95% CI, 1.65-3.49, P = < 0.0001, I2 = 0%, P = 0.62). LIMITATIONS: All included trials were conducted in China where emerging evidence suggests many RCTs are not, in fact, randomized. Publication bias may exist, favouring positive reports. CONCLUSION: Our meta-analysis displays compelling evidence of effectiveness for hepatocellular cancers that should be evaluated in high-quality and transparent clinical trials.
2954. Use of traditional Chinese medicine in the management of urinary stone disease

By Miyaoka Ricardo; Monga Manoj

OBJECTIVE: To assess the evidence-based literature supporting the use of traditional Chinese medicine Kampo herbal and Acupuncture in stone disease management. MATERIALS AND METHODS: Four of the most commonly used herbal components of Kampo medicine in the treatment of stone disease are described according to their in vitro and in vivo effects. We also reviewed the role of Acupuncture in urologic clinical setting as well as its proposed mechanisms of action and results. Medline database was assessed using isolated and conjugated key words (Chinese Medicine, Kampo, Chinese Herbal, Calculi, Stone Disease, Kidney, Acupuncture, Herbal Medicine). Articles were reviewed and summarized. RESULTS: Herbal medicine has been proven to be free from side-effects and therefore suitable for long term use therapy. Its antilithic beneficial effects include increased urinary volume, increased magnesium excretion (Takusya), inhibitory activity on calcium oxalate aggregation (Takusya, Wulingsan and Desmodyum styracyfolium), inhibition of calcium oxalate nucleation and hydroxyapatite internalization (Wulingsan). In contrast, acupuncture, has shown to be effective as a pre-treatment anxiolytic and analgesic during colic pain and extracorporeal shock wave lithotripsy treatment, reducing the need for complementary sedative drugs. CONCLUSION: Chinese traditional medicine is promising as regards its role in stone prevention. An effort must be made in order to standardize study protocols to better assess acupuncture results since each procedure differs in regards to selected acupoints, electrostimulation technique and adjunct anesthetics. Similarly, standardization of Kampo formulations and acceptable clinical endpoints (imaging vs. symptomatic events) is needed.

2955. Traditional Chinese medicine: balancing the gut ecosystem

By Li Houkai; Zhou Mingmei; Zhao Aihua; Jia Wei
From Phytotherapy research : PTR (2009), 23(9), 1332-5, Language: English, Database: MEDLINE

Gut microflora has become a topic of interest in life sciences in the context of global systems biology, in which human biological system is viewed as ‘superorganisms’ involving an internal ecosystem of diverse microbiome. We conceive that multi-pathway modulations of the human gut microbial system exerted by traditional Chinese medicines (TCMs) to restore the balance of the gut ecology may account for a large portion of their effectiveness in host during treatment. Such a concept is evidenced by series of studies which have revealed an interactive relationship between gut microflora and TCM, involving the two important aspects: gut microflora-dependent drug metabolism in TCM and gut microflora-targeted modulation of physiological conditions, both of which highlight the significance of gut microflora involvement in the future TCM investigation.

2956. Identification and quality control of Chinese medicine based on the fingerprint techniques

By Zhong Xian-Ke; Li Di-Cai; Jiang Jian-Guo
From Current medicinal chemistry (2009), 16(23), 3064-75, Language: English, Database: MEDLINE
Traditional Chinese medicine (TCM) contains a large number of herbal medicine and Chinese patent medicine, each of which contains many compounds that may be relevant to the medicine's putative activity. The homonym and synonym are very popular in TCM for its source complex. How to identify species and control the quality of TCM has become urgent, and fingerprint techniques have now been widely used in TCM for these purposes. In the present paper, four popular fingerprinting techniques (CE, HPLC, GC, and XRD) and their current applications in TCM are reviewed. All these techniques are proved to be an advanced and effective way to get an accurate and integral fingerprint, and each is discussed in detail with examples. CE, HPLC and GC are widely considered as the ideal methods to work out fingerprint analysis. GC is outstanding in analyzing the volatile components and HPLC has advantages in the analysis of the majority of chemical components of TCM. However, because of the complexity of chemical components in TCM, it is very hard for single CE, HPLC or GC to characterize all these components. Hyphenated techniques are strongly recommended for the purpose of quality control of TCM. It is concluded that more rational approach to the authentication and quality assessment of TCM is essential and the fingerprint techniques might be a powerful tool for quality control of TCM in the near future for their unique advantages.

2957. Current evaluation of the millennium phytomedicine- ginseng (II): Collected chemical entities, modern pharmacology, and clinical applications emanated from traditional Chinese medicine

By Jia Lee; Zhao Yuqing; Liang Xing-Jie
From Current medicinal chemistry (2009), 16(22), 2924-42, Language: English, Database: MEDLINE

This review, a sequel to part 1 in the series, collects about 107 chemical entities separated from the roots, leaves and flower buds of Panax ginseng, quinquenolius and notoginseng, and categorizes these entities into about 18 groups based on their structural similarity. The bioactivities of these chemical entities are described. The 'Yin and Yang' theory and the fundamentals of the 'five elements' applied to the traditional Chinese medicine (TCM) are concisely introduced to help readers understand how ginseng balances the dynamic equilibrium of human physiological processes from the TCM perspectives. This paper concerns the observation and experimental investigation of biological activities of ginseng used in the TCM of past and present cultures. The current biological findings of ginseng and its medical applications are narrated and critically discussed, including 1) its antihyperglycemic effect that may benefit type II diabetics; in vitro and in vivo studies demonstrated protection of ginseng on beta-cells and obese diabetic mouse models. The related clinical trial results are stated. 2) its aphrodisiac effect and cardiovascular effect that partially attribute to ginseng's bioactivity on nitric oxide (NO); 3) its cognitive effect and neuropharmacological effect that are intensively tested in various rat models using purified ginsenosides and show a hope to treat Parkinson's disease (PD); 4) its uses as an adjuvant or immunotherapeutic agent to enhance immune activity, appetite and life quality of cancer patients during their chemotherapy and radiation. Although the apoptotic effect of ginsenosides, especially Rh2, Rg3 and Compound K, on various tumor cells has been shown via different pathways, their clinical effectiveness remains to be tested. This paper also updates the antioxidant, anti-inflammatory, anti-apoptotic and immune-stimulatory activities of ginseng, its ingredients and commercial products, as well as common side effects of ginseng mainly due to its overdose, and its pharmacokinetics.

2958. Progress of research in antitumor mechanisms with Chinese medicine

By Han Shu-yan; Li Ping-ping
From Chinese journal of integrative medicine (2009), 15(4), 316-20, Language: English, Database: MEDLINE

The anti-tumor effects of Chinese herbal medicines and their prescription preparations attracted more and more attention at home and abroad. Thus, it is becoming a hot research topic to exploit the anti-tumor mechanisms of Chinese medicine, and some of them have been partly clarified with the improved research ability to date. In brief, the Chinese herbal medicines possess unique advantages on the treatment of tumors through their multiple actions on multiple targets.

2959. A brief on pain and its patterns in Chinese medicine
Pain is the most common symptom in clinics. Therefore, the quality, time course and location of pain are important for the diagnosis and treatment. However, pain is very difficult to define, and it is one of the conditions poorly understood by the medical sciences. In Western medicine, pain is often described in terms of a penetrating or tissue-destructive process and/or emotional reactions, but in Chinese medicine the pathogenesis and description of pain are different. It is described based on the theories and pathogenesis of Chinese medicine, and the patients’ feeling according to their languages and cultures. Thus, when taking the history and conducting physical examination in patients in China and treating them according to Chinese medicine, we have to know how these patients express and describe their pain when they go to clinics. This article will explain some terms and words in the Chinese language and their corresponding terms in the English language.

~0 Citings

2960. Clinical significance of inflammation factors in acute coronary syndrome from pathogenic toxin

By Feng Yan; Zhang Jing-chun; Xi Rui-xi
From Chinese journal of integrative medicine (2009), 15(4), 307-12, Language: English, Database: MEDLINE

The inflammation factors and roles of them in acute coronary syndrome (ACS) were explored. The similarity between the theory of pathogenic toxin in Chinese Medicine and the inflammation response theory in ACS was discussed. The exploration of new inflammatory factors may be helpful for Chinese Medicine in the research of ACS.

~0 Citings

2961. Treatment of migraine from the view of disease diagnosis and syndrome differentiation in combination

By Li Tao
From Chinese journal of integrative medicine (2009), 15(4), 251-3, Language: English, Database: MEDLINE

~0 Citings

2962. Acupuncture analgesia in migraine

By Wu Gen-cheng

~0 Citings

2963. Current progress in the classification and treatment of headache

By Cai Ding-fang
From Chinese journal of integrative medicine (2009), 15(4), 243-7, Language: English, Database: MEDLINE

~0 Citings

2964. Effect of Tripterygium wilfordii on gonadal injury and progression of its relative Chinese medicine therapy
The paper reviewed the clinical manifestation and potential mechanism of gonadal injury of Tripterygium wilfordii and the progression of its relative Chinese medicine therapy. The therapeutic effect of T. wilfordii is certain, but its adverse effect is obvious. Therefore, it is very important to investigate the relative therapy for the exploration of rationality and regularity of drug compatibility.

~0 Citings

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2965. Progress on prevention and treatment of Chinese medicine to molecular mechanism of liver cancer

By Jiang Ziyu; Hua Haiqing
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2009), 34(10), 1310-3, Language: Chinese, Database: MEDLINE

The occurrence of liver cancer is a multi-phase and multi-factor process, while Chinese medicine used for antitumor is all-round with multiple approaches. This summary is a literature review which elaborates the prevention and treatment of Chinese medicine to the molecular mechanism of liver cancer in eight aspects, such as inhibiting the proliferation of hepatoma cell, inducing their differentiation, affecting the activity of telomerase, resisting the invasion and metastasis of hepatoma cell, inhibiting the formation of tumor vessel, adjusting the immunity function, and reversing the multidrug resistance, etc.

~1 Citing

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2966. Psychotherapy and traditional Chinese medicine for perimenopausal depression: a literature review

By Zhang Chun; Li Lin; Jiang Yun
From Zhong xi yi jie he xue bao = Journal of Chinese integrative medicine (2009), 7(8), 779-83, Language: Chinese, Database: MEDLINE

~0 Citings

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2967. Determination methods for inspection of the complexion in traditional Chinese medicine: a review

By Lu Lu-Ming; Chen Xiao; Xu Jia-Tuo
From Zhong xi yi jie he xue bao = Journal of Chinese integrative medicine (2009), 7(8), 701-5, Language: Chinese, Database: MEDLINE

Inspection of the complexion is one of the characteristics of traditional Chinese medical diagnosis. Traditional Chinese medicine puts high emphasis on inspection of the complexion and there exists detailed discussion on inspection of facial expression in Neijing. The so-called inspection of facial expression is a method to diagnose diseases according to the theory of five Zang-organs matching five elements and five colors by distinguishing various changes of facial color, such as green, red, yellow, white and black based on yin and yang doctrine and five elements theory. Nowadays, more and more experts have introduced color optical theory and modern devices into the modern research field of traditional Chinese medical diagnosis with the development of color optical theory and the renewal of determining devices, such as digital camera, color differentiation meter and spectrophotometer, to make the research more scientific and objective and avoid the deviations caused by human factors. The modern study of traditional Chinese medicine diagnosis has made fare progress, consequently enriching the contents of its facial color observation and giving a more scientific explanation of it. However, the devices being used now are still disunited; the data may be unilateral and cannot contain the whole information. So the most important task is to invent and use scientific devices conforming better with the theory of five colors observation in traditional Chinese medicine.

~0 Citings

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2968. Modulation of endothelial nitric oxide by plant-derived products

By Schmitt Christoph A; Dirsch Verena M
From Nitric oxide : biology and chemistry / official journal of the Nitric Oxide Society (2009), 21(2), 77-91, Language: English, Database: MEDLINE

Nitric oxide (NO), produced by endothelial nitric oxide synthase (eNOS), is recognised as a central anti-inflammatory and anti-atherogenic principle in the vasculature. Decreased availability of NO in the vasculature promotes the progression of cardiovascular diseases. Epidemiological and clinical studies have demonstrated that a growing list of natural products, as components of the daily diet or phytomedical preparations, may improve vascular function by enhancing NO bioavailability. In this article we first outline common pathways modulating endothelial NO production or bioavailability to provide a basis for subsequent mechanistic discussions. Then we comprehensively review natural products and plant extracts known to positively influence eNOS activity and/or endothelial function in vitro or in vivo. We will discuss red wine, highlighting polyphenols, oligomeric procyanidins (OPC) and resveratrol as modulators of endothelial NO production. Other dietary products and their active components known to activate eNOS include cocoa (OPC and its monomer (-)-epicatechin), pomegranates (polyphenols), black and green tea (flavonoids, especially epigallocatechin gallate), olive oil (oleic acid and polyphenols), soy (genistein), and quercetin, one of the most abundant flavonoids in plants. In addition, phytomedical preparations made from ginkgo, hawthorn and ginseng, as well as formulations used in traditional Chinese Medicine, have been shown to affect endothelial NO production. Recurring phytochemical patterns among active fractions and purified compounds are discussed. In summary, there is increasing evidence that several single natural products and plant extracts influence endothelial NO production. Identification of such compounds and characterisation of their cellular actions may increase our knowledge of the regulation of endothelial NO production and could provide valuable clues for the prevention or treatment of cardiovascular diseases.

~5 Citings

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2969. Application of metabonomic analytical techniques in the modernization and toxicology research of traditional Chinese medicine

By Lao Yong-Min; Jiang Jian-Guo; Yan Lu
From British journal of pharmacology (2009), 157(7), 1128-41, Language: English, Database: MEDLINE

In the recent years, a wide range of metabonomic analytical techniques are widely used in the modern research of traditional Chinese medicine (TCM). At the same time, the international community has attached increasing importance to TCM toxicity problems. Thus, many studies have been implemented to investigate the toxicity mechanisms of TCM. Among these studies, many metabonomic-based methods have been implemented to facilitate TCM toxicity investigation. At present, the most prevailing methods for TCM toxicity research are mainly single analysis techniques using only one analytical means. These techniques include nuclear magnetic resonance (NMR), gas chromatography-mass spectrometry (GC-MS), and liquid chromatography-mass spectrometry (LC-MS), etc.; with these techniques, some favourable outcomes have been gained in the toxic reaction studies of TCM, such as the action target organs assay, the establishment of action pattern, the elucidation of action mechanism and the exploration of action material foundation. However, every analytical technique has its advantages and drawbacks, no existing analytical technique can be versatile. Multi-analysed techniques can partially overcome the shortcomings of single-analysed techniques. Combination of GC-MS and LC-MS metabolic profiling approaches has unravelled the pathological outcomes of aristolochic acid-induced nephrotoxicity, which can not be achieved by single-analysed techniques. It is believed that with the further development of metabonomic analytical techniques, especially multi-analysed techniques, metabonomics will greatly promote TCM toxicity research and be beneficial to the modernization of TCM in terms of extending the application of modern means in the TCM safety assessment, assisting the formulation of TCM safety norms and establishing the international standards indicators.

~2 Citings

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2970. Acupuncture: basics, practice, and evidence

By Stor W; Irnich D
From Schmerz (Berlin, Germany) (2009), 23(4), 405-17; quiz 418, Language: German, Database: MEDLINE
Acupuncture, which originated with traditional Chinese medicine, has been increasingly used in Western medicine over the last three decades. A huge body of scientific literature reports the physiological and clinical effects of acupuncture. In Germany, about 30,000 physicians apply acupuncture at least occasionally, and German health insurances reimburse acupuncture treatment for chronic low back pain and osteoarthritis of the knee. This overview discusses the most important historical, theoretical, practical, and scientific aspects of acupuncture in general, with a special look at anaesthesia. Regarding anaesthesia, supportive acupuncture treatment is performed for postoperative pain, anxiolysis, and postoperative nausea and vomiting, based on promising results of rigorous randomised trials. However, many unresolved questions remain, such as regarding specificity of concepts, indications, and optimum dose.

~0 Citings

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2971. Application of targeted drug delivery system in Chinese medicine
By Li Di-Cai; Zhong Xian-Ke; Zeng Zhi-Ping; Jiang Jian-Guo; Li Lin; Zhao Mou-Ming; Yang Xiao-Quan; Chen Jian; Zhang Ben-Shan; Zhao Qiang-Zhong; et al
From Journal of controlled release : official journal of the Controlled Release Society (2009), 138(2), 103-12,
Language: English, Database: MEDLINE

Targeted drug delivery system of traditional Chinese medicine (TCM) refers to those using different carriers to make the effective parts or monomer extracted from TCM or natural medicine into agents which can directly concentrate on the target site. This system is an ideal delivery approach and has become a hot spot in the field of TCM pharmaceutical research since it can improve the pharmacological effects and reduce the adverse reactions. This paper reviews literatures on TCM targeted agents which were published in the past 10 years. In accordance with the different carriers, four types of agents, liposome, nanoparticle, microsphere, and emulsion are analyzed. Liposomes were studied most profoundly and a variety of new types of liposomes was developed on the basis of the traditional liposomes. Using natural or synthetic polymer materials to carry drugs, nanoparticles and microspheres can promote the drug through the blood-brain barrier and enhance its bioavailability. Emulsion has lymphatic affinity and the drug is coated in the internal phase, which can protect the drugs from hydrolysis. All these delivery agents are proved to be effective ways to improve the clinical efficacy of drugs, and each is discussed in detail with examples. At present, TCM targeted agents are still in the exploratory stage and many problems need to be solved. Especially, it is a huge challenge to research the targeted delivery systems for the effective parts of Chinese medicines and compound prescriptions, and the paper gives a particular discussion on this point. In the future, more attention should be paid to the research on the particle agents of TCM effective parts, and the development of new carrier materials in order to enhance the overall quality of TCM targeted agents.

~1 Citing

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2972. Research progress of traditional Chinese medicine for stem cell therapy of ischemic heart disease
By Wu Huaqin; Hu Yuanhui; Zhou Yuping; Chu Yuguang
From Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica (2009), 34(8), 935-8, Language: Chinese, Database: MEDLINE

Regeneration myocardium by stem cell transplantation has become a focus in research areas of cardial vascular disease. This review deals the role of traditional Chinese medicine in stem cell therapy of ischemic heart disease, such as mobilizing bone marrow stem cells, promoting stem cell proliferation, survival, induced them to differentiate into cardiomyocytes, and so on, showing good application prospects.

~0 Citings

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2973. The root and development of otorhinolaryngology in traditional Chinese medicine
By Yap L; Pothula V B; Warner J; Akhtar S; Yates E
From European archives of oto-rhino-laryngology : official journal of the European Federation of Oto-Rhino-Laryngological Societies (EUFOS) : affiliated with the German Society for Oto-Rhino-Laryngology - Head and Neck Surgery (2009), 266(9), 1353-9, Language: English, Database: MEDLINE
There is an increasing trend in society to look beyond conventional medicine to find answers to problems in health. Traditional Chinese medicine (TCM) is one of the most popular alternative, complementary therapies worldwide. It is becoming a popular alternative in otorhinolaryngology where its use in the treatment of sinusitis, tinnitus, deafness and Meniere's disease is growing. Despite the general awareness of TCM, the literature relating specifically to otorhinolaryngology is relatively scarce. In this review, we have traced the origin and development of otorhinolaryngology with respect to TCM and have provided a few interesting insights into otorhinolaryngology, as it used to be practised. Archaeological sources have shown that diseases affecting the ear, nose and throat were of medical concern as early as the 18th century BC. The first practising otorhinolaryngologist can be traced back to the 5th century BC. Acupuncture, moxibustion, herbal therapy and massage were amongst his treatments. Otorhinolaryngology was recognised as a major specialty when formal medical education began in the 7th century AD. Therapeutic measures since then expanded to include exercise, food therapy and surgery. References to using oesophageal speech as a substitute voice generator, the use of copper wire to excise nasal polyps, procedures for removal of sharp foreign bodies in the oropharynx, repair of lacerated trachea and treatment of cancer of lips can be found in historical notes. In conclusion, from its primitive roots, TCM has developed into a distinct branch of health care system in China today that works alongside Western medicine.

~0 Citings

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2974. Potential anti-dementia agents in traditional Chinese medicine

By Li Xue-Juan; Zhang Hong-Yu

From Natural product communications (2009), 4(6), 877-86, Language: English, Database: MEDLINE

Dementia is becoming one of the biggest threats to human health. However, there is no efficient therapeutic approach so far. Thus, traditional medicines, which have accumulated certain experience in the treatment of dementia, are attracting more and more attention. Indeed, many anti-dementia drugs or drug candidates have been derived from these medicines. In this article, the profile of anti-dementia agents contained in traditional Chinese medicine (TCM) is described. It is indicated that TCM is not only a rich source of acetylcholinesterase inhibitors, but also of great potential to derive other kinds of anti-dementia agents which are either directly associated with ameliorating dementia or have complementary effects. These agents have apparent implications for anti-dementia drug discovery, especially for finding multicomponent anti-dementia drugs.

~0 Citings

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2975. Complex traditional Chinese medicine for poststroke motor dysfunction: a systematic review

By Junhua Zhang; Menniti-Ippolito Francesca; Xiumei Gao; Firenzuoli Fabio; Boli Zhang; Massari Marco; Hongcai Shang; Yuhong Huang; Ferrelli Rita; Limin Hu; et al

From Stroke; a journal of cerebral circulation (2009), 40(8), 2797-804, Language: English, Database: MEDLINE

BACKGROUND AND PURPOSE: For its current dimensions, stroke represents the world's primary health challenge. In China stroke is the second most common cause of death. Traditional Chinese Medicine (TCM) has for many centuries been used, and it is still widely used today in countries of south and east Asia for the treatment of people with stroke. The objective of this systematic review was to evaluate whether complex Traditional Chinese Medicine (cTCM) improves poststroke motor recovery. In particular, we defined cTCM as intervention that included at least acupuncture and Chinese herbal medicine. METHODS: An extensive search including PubMed, EMBASE, CBM, and the Cochrane Library was performed up to December 2007. Randomized clinical trials (RCTs) about cTCM for motor dysfunction of poststroke were searched irrespective of any language. The quality of each trial was assessed according to the Cochrane Reviewers' Handbook 4.2.6. RESULTS: After selection of 11 234 articles, 34 RCTs and quasi-RCTs were included. All these trials were conducted in China and published on Chinese journals. All trials but one reported results in favor of cTCM treatments suggesting a strong publication bias. Because of the significant clinical and methodological heterogeneity, no meta-analysis was performed and thus no cumulative result was obtained pooling data of RCTs. CONCLUSIONS: What appears from this systematic review is that scant data are available to evaluate efficacy of cTCM for poststroke motor dysfunction. Most of the primary studies available for this review were inadequately designed trials characterized by unknown dropout rates and definitional vagueness in outcomes measures. None of the studies approached important end points like death, survival times, rate of dependency, reduction in length of stay in hospital, etc. The key to lead to evidence-based practices is establishing a consensus on standardized relevant outcome measures and then designing and conducting appropriate RCTs that adopt those standards.

~0 Citings
2976. Ethnobotany, phytochemistry and pharmacology of the genus Caragana used in traditional Chinese medicine
By Meng Qiumhua; Niu Yu; Niu Xiwu; Roubin Rebecca H; Hanrahan Jane R

The genus Caragana is a member of the family Fabaceae, subfamily Faboideae and is native to arid and semi-arid areas of the temperate zones of Asia and Eastern Europe. Many species are cultured for dune-fixation, livestock forage and biological resources for fuel energy and fiber production. More than 10 species in this genus have a long history of use in traditional Chinese, Mongolian and Tibetan medicines and are believed to "nourish yin, invigorate the spleen, temper the blood and promote blood flow". They have been used for the treatment of a wide range of ailments including fevers, inflammation, wounds and infections, dizziness, headache, hypertension, female disorders, arthritis and cancer. Over 100 phytochemicals have been identified with flavonoids and stilbenoids being the major constituents of this genus. Clinical studies have demonstrated the pharmacological activities of different Caraganum species, e.g. Caragana sinica for the treatment of hypertension, and in vivo and/or in vitro studies have provided some support for other traditional uses, e.g. anti-cancer, anti-inflammatory, phytoestrogenic, immunostimulant and immunosuppressant activities. However, further studies to identify the active components and further verify the pharmacological activities are warranted. This review presents a comprehensive analysis of the ethnobotany, phytochemistry and pharmacology of the genus Caragana.

~0 Citings

2977. Adjuvant activities of saponins from traditional Chinese medicinal herbs
By Song Xiaoming; Hu Songhua
From Vaccine (2009), 27(36), 4883-90, Language: English, Database: MEDLINE

New generation vaccines such as recombinant, antigen purified and DNA vaccines are poorly immunogenic due to the lack of an innate immune stimulus. Therefore, search of new adjuvants for these vaccines has become a topic of interest. In new adjuvant development, saponins are outstanding candidates. Recently, increased attention has been received on plant-derived saponins in search of new adjuvant candidates from traditional Chinese medicinal herbs such as Panax ginseng, Astragalus species, Panax notoginseng, Cochinchina momordica, Glycyrrhiza uralensis and Achyranthes bidentata. Many of the saponins have been found to have adjuvant effects on purified protein antigens. The chemical structures of the saponins are related to their adjuvant activities, and influence the nature of the immune responses. Saponin adjuvants have been reported to stimulate secretion of a broad range of cytokines, suggesting that saponins may act by triggering innate immunity. As these plant-originated adjuvants may promote different branches of the immune system, they have the potential to be used in design of new vaccines so as to induce a desired immune response.

~0 Citings

2978. An analytical review of the Chinese literature on Qigong therapy for diabetes mellitus
By Chen Kevin W; Liu Tianjun; Zhang Haibo; Lin Zhongpeng

Diabetes rates have doubled in China over the past decade. However, as conventional medicine offers neither a sound explanation nor an effective cure, patients with diabetes increasingly seek complementary and alternative therapies. It was reported that the traditional Chinese medical approach, Qigong, might produce therapeutic benefits with minimal side-effects in this condition. The Qigong Database, the China National Knowledge Infrastructure, and the library databases of Chinese institutions from 1978 to middle of 2008 on open trials, laboratory studies, and controlled clinical studies were reviewed. Over 35 studies were identified and reviewed. Qigong therapy for diabetic patients included self-practice, group qi-field therapy, external qi therapy, and Qigong in combination with other therapies. Only 2 randomized controlled trials were found; both evaluate Qigong as an adjuvant to conventional therapy. All studies reported some therapeutic effect or improvement. Some reported significant reduction in fasting plasma glucose. Others reported complete cures, which were unlikely to be the result of placebo effect as objective outcome measures were used. Qigong therapy may be an important complement to conventional medicine in treating diabetes, but the quality of studies needs to be improved. These preliminary data are promising and support the need for further randomized controlled trials.

~1 Citing
2979. New exploration and understanding of traditional Chinese medicine
By Xutian Stevenson; Zhang Jun; Louise Wozniak
From The American journal of Chinese medicine (2009), 37(3), 411-26, Language: English, Database: MEDLINE

Traditional Chinese Medicine (TCM), originating from oriental philosophy and culture, has been developing through a series of special research and experiments with meditation, accumulation of experiences, and a complete comprehension of ancient theories and methods. However, compared with Conventional Western Medicine (CWM), the theory of TCM is complicated and not easily accepted by Westerners. It is important to explore TCM by using modern scientific techniques and theories. Utilizing his frontier experience and up-to-date scientific knowledge, Dr. Qian Xuesen has been trying to incorporate some key principles with the comprehensive understanding of TCM and clarify difficult but important concepts and principles. Some examples are the existence of invisible matter; 'Qi' and 'Qi monism'; the Heart representing the 'whole will' of human beings; the water environment functioning as a fundamental condition of life; the human body being united with nature and universe as one; the spirit and physical body always being considered unified and connected with the five viscera, especially with the Heart; and the Chinese herbal formula working with different principles than CWM drugs. These works are important for understanding the essence of TCM, the promoting of the modernization of TCM theories by means of the latest of achievements in scientific developments, establishing the direction for future medicines with TCM characteristics, uniting Chinese and Western medicines, and exploiting a bright future for the health of mankind.

~1 Citing

2980. Current evaluation of the millennium phytomedicine--ginseng (I): etymology, pharmacognosy, phytochemistry, market and regulations
By Jia Lee; Zhao Yuqing
From Current medicinal chemistry (2009), 16(19), 2475-84, Language: English, Database: MEDLINE

The dawning of this millennium broke new ground in life science and technology, presented us genomic and proteomic revolution, nanotechnology innovation, and high performance liquid chromatography coupled with tandem mass spectrometry (LC/MS/MS) used for separating and identifying new chemical entities at pico-, or even femto-concentrations. Applications of these high technologies to the traditional Chinese medicine (TCM) opened a new chapter in the ancient medicine, and prompted us to re-evaluate the thousand-year-old phytomedicine- ginseng from current perspectives. We, therefore, collected the latest information (mostly within 10 years) on ginseng, and condensed the information into two parts of this review serial. The present part covers etymology of ginseng, its pharmacognosy (natural origin, physical appearance, chemical properties, and specie identification), its cultivation and processing-related metabolic changes in active ingredients, standardized analytical methods used for quality control of various ginseng products, modern analytical methods used to identify and classify more than 100 chemical entities (many were recently unfolded) derived from ginseng species and their metabolites. The global markets and production of ginseng and relevant government regulations are herein updated to exchange information and understandings about current people's uses and cultivation of ginseng. The second part of the review serial will classify all these 100 chemical entities separated from various ginseng species into different groups based on their structural similarities, and summarize bioactivities of these entities. The second part of the review serial will also focus on recent findings of ginseng pharmacology and its clinical trials for various diseases, and brief side effects of ginseng.

~2 Citings

2981. Advances in biomechanical studies on functional training for the treatment of fractures
By Fang Bin; Yang Hai-yun
From Zhongguo gu shang = China journal of orthopaedics and traumatology (2009), 22(6), 478-80, Language: Chinese, Database: MEDLINE
Functional training is put a very high position in the treatment of fractures by Western Medicine and Traditional Chinese Medicine. The influences of functional training during fracture healing are very important. Functional training will begin after reduction and fixation and it represents the principle of the combination of functional training and fixation in the fracture treatment by TCM. Functional training makes kinds of favourable stress, which can accelerate the healing of fracture, but the incorrect functional training makes shear strength or torsion and so on, which may make interfere fracture healing. So, the biomechanical studies on functional training of the fracture are becoming a focus of fracture treatment.

2982. Eosinophilic cystitis caused by Seijo-bohhu-tou: a case report
By Muraoka Kentaro; Yokonishi Tetsuhiro; Matsumoto Tatsuya; Umemoto Susumu; Shioi Kohichi; Komiya Atsushi; Tomoda Takeshi; Yoshida Minoru; Takase Kazunori; Oogo Yoshiharu; et al

A 19-year-old woman was admitted to our hospital with a complaint of residual feeling, frequency and pain on urination. Laboratory analysis revealed an elevated eosinophilia count in peripheral blood and white blood cell count in urine. Lymphocyte stimulation test of Chinese herb named "Seijoh-bohuh-toh" showed a positive reaction. Bladder symptoms were improved after ceasing this Chinese herb. From these points, we considered that the Chinese herb might have caused eosinophilic cystitis. We report this rare case with a review of the literature.

2983. Exploring transplant opportunities in Hmong culture: a case report
By Neidich Alon; Mahanty Harish D; Bramstedt Katrina A
From Progress in transplantation (Aliso Viejo, Calif.) (2009), 19(2), 188-91, Language: English, Database: MEDLINE

A clinical case is used to explore the ethical complexities of solid organ donation and transplantation within the Hmong community in the United States. Although many cultures can present various ethical issues, the challenges of the Hmong belief system are unique and distinctly complex. Ways for the medical team to integrate with the Hmong value system to attempt to create an environment of transcultural respect and appreciation are described.

2984. Traditional Chinese medicine for epilepsy
By Li Qifu; Chen Xiaoyan; He Li; Zhou Dong
From Cochrane database of systematic reviews (Online) (2009), (3), CD006454, Language: English, Database: MEDLINE
BACKGROUND: Seizures are poorly controlled in many people with epilepsy, despite current antiepileptic treatments. Some turn to alternative or complementary therapy to treat their condition and the use of traditional Chinese medicinal herbs (TCMH) is increasingly popular. However, it remains unclear whether the existing evidence is rigorous enough to support its use.

OBJECTIVES: To determine the effectiveness and safety of traditional Chinese medicine in people with epilepsy.

SEARCH STRATEGY: Our search included the Cochrane Epilepsy Group's Specialised Register and the Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library 2007, Issue 1), MEDLINE (1950 to 2007) and EMBASE (1974 to 2007).

SELECTION CRITERIA: Randomised controlled trials evaluating traditional Chinese medicine in people of any age with any type of epilepsy, and comparing one formula of TCM with no intervention, placebo or single Western medicine (monotherapy).

DATA COLLECTION AND ANALYSIS: Two review authors independently extracted trial data and assessed quality. We assessed the following outcomes: (a) seizure freedom for at least one year; (b) 50% or greater reduction in seizure frequency; (c) percentage reduction in seizure frequency and duration; and (d) adverse events.

MAIN RESULTS: Five short-term studies involving 1125 participants met the inclusion criteria. All the studies were of poor methodological quality and had a high probability of selection, detection and performance bias. Two studies assessed seizure freedom for one year. One found no difference between Xiaxingci granule and phenytoin for primary generalized tonic-clonic seizures (RR 1.00; 95% CI 0.07 to 14.90). The other study found no difference between Dianxianning pill and valproate (RR 1.00; 95% CI 0.74 to 227.72) for different types of epilepsy.

Three studies assessed a 50% or greater reduction in seizure frequency. One found an advantage for Tianmadingxian capsule when compared to phenytoin (RR 1.37; 95% CI 1.23 to 1.53) in different types of epilepsy, the second an advantage for Zhixian I pill when compared to phenytoin (RR 1.31; 95% CI 1.16 to 1.48) in primary generalized tonic-clonic seizure, and the third an advantage for an 'Antiepilepsy capsule' when compared to phenobarbital (RR 1.21; 95% CI 1.02 to 1.43) for primary and secondary generalized tonic-clonic seizure. One study reported the incidence of adverse effects and the Peto odds ratio was 0.04 (99% CI 0.01 to 0.12, P < 0.00001) favouring TCMH compared to phenobarbital.

AUTHORS' CONCLUSIONS: The current evidence is insufficient to support the use of traditional Chinese medicine as a treatment for epilepsy. Much larger, high quality randomised clinical trials are needed to evaluate the effectiveness and safety of traditional Chinese medicinal herbs for treating epilepsy.
2988. Development of ion-sensitivity in-situ gel

By Dai Long

The recent research papers in ion-sensitivity in-situ gel were reviewed on the following aspects: the characteristics of the gel, the polymer, preparation technology as well as the applications of optical, nasal, and oral route of administration. The solution-gel property of transformation of in-situ gel, which has simple preparation, convenient operation, strong affinity and enough retention time with affected part, especially with mucosa. The recent research advances in ion-sensitivity in-situ gel were mainly reviewed from the following aspects: the characteristics of the gel, the polymer, preparation technology as well as the applications of optical, nasal, and oral route of administration. The present problems of in-situ gel and prospective applications in traditional Chinese medicine were also discussed.

~0 Citings

2989. Connotation and academic views of syndrome essence

By Zhang Rong-Hua; Li Bo
From Zhongguo Zhong xi yi jie he za zhi Zhongguo Zhongxiyi jiehe zazhi = Chinese journal of integrated traditional and Western medicine / Zhongguo Zhong xi yi jie he xue hui, Zhongguo Zhong yi yan jiu yuan zhu ban (2009), 29(4), 375-8, Language: Chinese, Database: MEDLINE

~0 Citings

2990. Progress on research of the relationship between cell aging and aging of blood vessels

By Yang Jing; Lei Yan
From Zhongguo Zhong xi yi jie he za zhi Zhongguo Zhongxiyi jiehe zazhi = Chinese journal of integrated traditional and Western medicine / Zhongguo Zhong xi yi jie he xue hui, Zhongguo Zhong yi yan jiu yuan zhu ban (2009), 29(4), 369-74, Language: Chinese, Database: MEDLINE

~0 Citings

2991. Traditional Chinese medicine: a complement to conventional

By Darby Susan B
From Nursing for women's health (2009), 13(3), 198-206, Language: English, Database: MEDLINE

~0 Citings

2992. Aconite poisoning

By Chan Thomas Y K

~0 Citings
INTRODUCTION: Aconitine and related alkaloids found in the Aconitum species are highly toxic cardiotoxins and neurotoxins. The wild plant (especially the roots and root tubers) is extremely toxic. Severe aconite poisoning can occur after accidental ingestion of the wild plant or consumption of an herbal decoction made from aconite roots. In traditional Chinese medicine, aconite roots are used only after processing to reduce the toxic alkaloid content. Soaking and boiling during processing or decoction preparation will hydrolyze aconite alkaloids into less toxic and non-toxic derivatives. However, the use of a larger than recommended dose and inadequate processing increases the risk of poisoning.

METHODS: A Medline search (1963-February 2009) was conducted. Key articles with information on the use of aconite roots in traditional Chinese medicine, active (toxic) ingredients, mechanisms of toxicity, toxicokinetics of Aconitum alkaloids, and clinical features and management of aconite poisoning were reviewed.

MECHANISMS OF TOXICITY: The cardiotoxicity and neurotoxicity of aconitine and related alkaloids are due to their actions on the voltage-sensitive sodium channels of the cell membranes of excitable tissues, including the myocardium, nerves, and muscles. Aconitine and mesaconitine bind with high affinity to the open state of the voltage-sensitive sodium channels at site 2, thereby causing a persistent activation of the sodium channels, which become refractory to excitation. The electrophysiological mechanism of arrhythmia induction is triggered activity due to delayed after-depolarization and early after-depolarization. The arrhythmogenic properties of aconitine are in part due to its cholinolytic (anticholinergic) effects mediated by the vagus nerve. Aconitine has a positive inotropic effect by prolonging sodium influx during the action potential. It has hypotensive and bradycardic actions due to activation of the ventromedial nucleus of the hypothalamus. Through its action on voltage-sensitive sodium channels in the axons, aconitine blocks neuromuscular transmission by decreasing the evoked quantal release of acetylcholine. Aconitine, mesaconitine, and hyperaconitine can induce strong contractions of the ileum through acetylcholine release from the postganglionic cholinergic nerves.

CLINICAL FEATURES: Patients present predominantly with a combination of neurological, cardiovascular, and gastrointestinal features. The neurological features can be sensory (paresthesia and numbness of face, perioral area, and the four limbs), motor (muscle weakness in the four limbs), or both. The cardiovascular features include hypotension, chest pain, palpitations, bradycardia, sinus tachycardia, ventricular ectopics, ventricular tachycardia, and ventricular fibrillation. The gastrointestinal features include nausea, vomiting, abdominal pain, and diarrhea. The main causes of death are refractory ventricular arrhythmias and asystole and the overall in-hospital mortality is 5.5%.

MANAGEMENT: Management of aconite poisoning is supportive, including immediate attention to the vital functions and close monitoring of blood pressure and cardiac rhythm. Inotropic therapy is required if hypotension persists and atropine should be used to treat bradycardia. Aconite-induced ventricular arrhythmias are often refractory to direct current cardioversion and antiarrhythmic drugs. Available clinical evidence suggests that amiodarone and flecaainide are reasonable first-line treatment. In refractory cases of ventricular arrhythmias and cardiogenic shock, it is most important to maintain systemic blood flow, blood pressure, and tissue oxygenation by the early use of cardiopulmonary bypass. The role of charcoal hemoperfusion to remove circulating aconitine alkaloids is not established.

CONCLUSIONS: Aconite roots contain aconitine, mesaconitine, hypaconitine, and other Aconitum alkaloids, which are known cardiotoxins and neurotoxins. Patients present predominantly with neurological, cardiovascular, and gastrointestinal features. Management is supportive; the early use of cardiopulmonary bypass is recommended if ventricular arrhythmias and cardiogenic shock are refractory to first-line treatment.

2993. Molecular mechanisms of traditional Chinese medicine for erectile dysfunction

By Jiang Jun; Jiang Rui


Erectile dysfunction (ED) is a commonly and frequently encountered male disease in clinic. For a long time, Chinese medicine holds a very important position in the treatment of ED in China. With deeper insights into penile erection and pathogenesis of ED, the action mechanisms of some traditional Chinese medicines have been clarified in the treatment of ED, which is of significant value for the development and promotion of traditional Chinese medicine.

2994. A survey of TCM treatment for endometriosis

By Han Yu-fen; Hou Li-hui; Zhou Ya-je; Wu Xiao-Ke

From Journal of traditional Chinese medicine = Chung i tsa chih ying wen pan / sponsored by All-China Association of Traditional Chinese Medicine, Academy of Traditional Chinese Medicine (2009), 29(1), 64-70, Language: English, Database: MEDLINE

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2993. Molecular mechanisms of traditional Chinese medicine for erectile dysfunction

By Jiang Jun; Jiang Rui


Erectile dysfunction (ED) is a commonly and frequently encountered male disease in clinic. For a long time, Chinese medicine holds a very important position in the treatment of ED in China. With deeper insights into penile erection and pathogenesis of ED, the action mechanisms of some traditional Chinese medicines have been clarified in the treatment of ED, which is of significant value for the development and promotion of traditional Chinese medicine.

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~0 Citings

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2995. Phage therapy

By Housby John N; Mann Nicholas H
From Drug discovery today (2009), 14(11-12), 536-40, Language: English, Database: MEDLINE

There is a renaissance of interest in the antimicrobial potential of phages as more pathogens become multiply antibiotic resistant. Phage therapy is not a new concept, and it is important to ask why it is not part of the current repertoire of western medicine despite the fact that it has been continuously and extensively used in Eastern Europe for almost a century. Answering this question successfully will, largely, determine whether phage therapy can gain the credibility needed to overcome the scientific, financial and regulatory hurdles facing its adoption in mainstream clinical practice. Despite a paucity of such information from human studies, pharmacokinetic data and clinical outcomes from animal studies are currently providing convincing evidence for the safety and efficacy of phage therapy.

~5 Citings

2996. Collateral theory and vascular lesion treatment

By Wu Yiling
From The American journal of Chinese medicine (2009), 37(2), 241-52, Language: English, Database: MEDLINE

The correlation between the collateral system of traditional Chinese medicine (TCM) and the vascular system of Western medicine was approached and the conception of "Mai" was analyzed. It was pointed out that "Mai" is an independent viscera with certain structure, function, and characteristics in metabolism. Ancient TCM physicians basically share the same knowledge on the vascular system with biomedicine in terms of its anatomical structure, but the distinctive TCM theory on qi-blood correlation can enrich the contents of the vascular system. The concept of "collateral-vascular system disease" was proposed based on ancient TCM literature and a clinical epidemiology survey on 3,469 cases with arteriosclerosis, approached by common pathological steps. The pathogenesis of vessel collateral-vascular system disease was investigated according to collateral theory, which pointed out the treatment principle - unblocking the collateral. Research in the treatment of cardio-cerebrovascular disease with Tongxinluo capsules - a representative formula. The relative treatment prescriptions are beneficial for the treatment of blood vessel lesion under the guidance of collateral theory in TCM, improving prevention and treatment level of vascular and related diseases.

~0 Citings

2997. A mini review of traditional Chinese medicine for the treatment of depression in China

By Zhao Hui; Wan Xia; Chen Jia-Xu
From The American journal of Chinese medicine (2009), 37(2), 207-13, Language: English, Database: MEDLINE

To systematically evaluate the effectiveness of Chinese herbal medicine for treating depression in China, the electronic medical database from China National Knowledge Infrastructure (CNKI) was searched using Chinese and the date is set, from 1st January 1994 to 1st August 2008. The 18 studies that met the entry criteria along with 1,260 randomized patients were included in this review. All studies with words like "randomization" or "quasi-randomization" in their abstracts were included, whether they used blinding or not. The results showed that the Chinese medicine treated group did not decrease the scores of the self-rating depression scale (-1.02, 95% CI -2.16 approximately 0.12, p = 0.08) and the scores of the Hamilton depression scale (-0.45, 95% CI -0.98 approximately 0.08, p = 0.10). The results showed there is no evidence to support that traditional Chinese medicine for depression has improved, which may be due to the low quality in all the trials. Therefore, more qualified, randomized controlled clinical trials are warranted to assure its efficacy.

~0 Citings

2998. Tai chi exercise for patients with cardiovascular conditions and risk factors: A SYSTEMATIC REVIEW
PURPOSE: To conduct a systematic review of the literature evaluating tai chi exercise as an intervention for patients with cardiovascular disease (CVD) or with CVD risk factors (CVDRF). METHODS: We searched (1) MEDLINE, CAB Alt HealthWatch, BIOSIS previews, Science Citation Index, EMBASE, and Social Science Citation Index from inception through October 2007; (2) Chinese Medical Database, China Hospital Knowledge, China National Knowledge Infrastructure, and China Traditional Chinese Medicine Database from inception through June 2005; and (3) the medical libraries of Beijing and Nanjing Universities. Clinical studies published in English and Chinese including participants with established CVD or CVDRF were included. Data were extracted in a standardized manner; 2 independent investigators assessed methodological quality, including the Jadad score for randomized controlled trials (RCTs). RESULTS: Twenty-nine studies met inclusion criteria: 9 RCTs, 14 nonrandomized studies, and 6 observational trials. Three studies examined subjects with coronary heart disease, 5 in subjects with heart failure, and 10 in heterogeneous populations that included those with CVD. Eleven studies examined subjects with CVDRF (hypertension, dyslipidemia, impaired glucose metabolism). Study duration ranged from 8 weeks to 3 years. Most studies included fewer than 100 subjects (range, 5-207). Six of 9 RCTs were of adequate quality (Jadad >or= 3). Most studies reported improvements with tai chi, including blood pressure reductions and increases in exercise capacity. No adverse effects were reported. CONCLUSION: Preliminary evidence suggests that tai chi exercise may be a beneficial adjunctive therapy for some patients with CVD and CVDRF. Further research is needed.

3000. Analysis and study on modern pharmacy and pharmacology of moxibustion

By Chen Xiang-hua; Zhang Guo-you; Zhou Mei-qi; Zheng Jun

This present paper introduces the advancement in the researches on modern pharmacy and pharmacology of moxibustion and proposes a new idea of comparative studies on pharmacologic action of different moxibustion materials, systematically analyzes the chemical compositions and the heat value of combustion of the argyi leaf of different strains, places of produce, cultivation ways or gathering times by the modern pharmaceutical research methods, and sums up that moxibustion has the functions of antisepticise, antivirus and regulating immune function by the modern pharmacological research methods. The authors think that the aforesaid comparative studies will establish the scientific foundation for determination of the best strain and primal chemical compositions of the argyi leaf for clinical efficacy, improvement of the moxibustion mode and enhancement of the therapeutic effect.