Posters
Comparison of the effects of Carbamyl-β-methylcholine chloride administered by intravenous, intramuscular and intra-acupuncture point injections

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Objective: To compare the effects of carbamyl-β-methylcholine chloride (CMCC) administered by intra-acupuncture point injection (IAI), intra-muscular injection (IMI), and intravenous injection (IVI), and to analyze the mechanisms.

Methods: In the IAI group, CMCC was injected into the Zusanliacupoint (ST 36) immediately after 30-min stimulation by electro-acupuncture (EA) at the acupoints, and into the femoral vein and skeletal muscle in IVI and IMI groups, respectively. Intragastric pressure was detected. The plasma concentration of CMCC was measured at various times.

Results: The gastric effect of CMCC in the IVI group was enhanced and attenuated more rapidly than in the other groups. In the IAI group, this effect was significantly stronger than that in the IMI group at 2 min and 15 min, but not significantly different between the two groups at 5 min and 30 min. Plasma concentration of CMCC in the IAI group was similar to that in the IVI group at 2 min, but higher than that in the IMI group. The concentration in the IAI group was higher than that in the IV group and similar to that in the IMI group at 5, 15 and 30 min, indicating rapid increase and slower reduction of the plasma concentration of the drug in the IAI group. There was a positive correlation between the plasma concentration of CMCC and intragastric pressure in all groups.

Conclusion: The effect of IAI with CMCC was stronger than that of IMI and long-lasting than that of IVI, which correlated with the blood concentration of CMCC.

Biography
Junhong Gao, MD is an Associate Professor of Institute of Acupuncture and Moxibustion, China Academy of Chinese Medical Sciences. His research interest is to explore the mechanism of acupuncture and moxibustion and joint administration of acupuncture and drugs. So far totally 3 research projects are/were granted by National Natural Science Foundation of China and Natural Science Foundation of Beijing (as the principal investigator), and more than 40 articles in total were published in reputed journals.

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Changes in attitudes toward and patterns in traditional Korean medicine among the general population in South Korea: A comparison between 2008 and 2011

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Background: Traditional Korean medicine (TKM) is acknowledged to be prevalent among the Korean public, but few follow-up studies are available to confirm this commonly held belief. Whereas most survey studies have focused on the demographic factors influencing the usage of TKM, only a few studies have conducted a pattern or trend analysis over time. The purpose of this paper is to observe and document recent trends in the usage of TKM in South Korea and to compare overall patterns of TKM use over a period of several years.

Methods: A cross-sectional survey was conducted in 2011 to assess TKM usage patterns and public perceptions regarding TKM. An online questionnaire was administered to consenting respondents that focused upon individual preferences between TKM and current Western medicine, respondents' reasons for using TKM, the frequency of respondents' visits to TKM clinics, the reasons respondents visited TKM clinics, and respondents' perceived satisfaction.

Results: The results revealed that 66.6% of the respondents showed a positive attitude toward TKM. In addition, 69.3% of the respondents had visited TKM clinics one to four times during the previous year. Patients used TKM with the intentions of receiving acupuncture (95.3%), moxibustion (40.1%), and cupping (36.0%) treatments or to take herbal medicines (35.7%). Most respondents who had visited TKM clinics were largely satisfied with the clinics' effectiveness (56.1%). The factors most commonly associated with TKM usage included sex (female), age (50s), and education (college or higher), but the within-factor differences were not significant. Compared with a previous survey of other groups, TKM usage was found to have increased from 45.8% in 2008 to 69.3% in 2011. With the exception of acupuncture and physical therapy, most usage doubled or more than doubled.

Conclusions: The attitudes toward and usage of TKM in South Korea have improved between 2008 and 2011. This result will be used to explain outcomes of certain social phenomena and to argue for national support in the promotion of TKM.

Biography
Ki Hoon Koo is an expertise in traditional Korean medicine at Korea Institute of Oriental Medicine, South Korea.

Notes:
The effect of Reiki on blood hypertension

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Objective: Determining the immediate effect of Reiki on abnormal blood pressure.

Methods: An experimental, double-blind study, in which were included 66 hypertensive patients, randomized to the three following study groups: control, placebo and experimental. The intervention lasted 20 minutes, the control group remained at rest, the placebo group received an imitation of the studied technique (mock Reiki) and the experimental group received the Reiki technique. Blood pressure was measured before and after the intervention by the same person with the same instrument.

Results: There was a decrease in blood pressure in the three groups and the reduction was greater in the experimental group, followed by the placebo and the control group. The ANOVA model for repeated measures showed a statistically significant difference among the groups (p <0.0001).

Conclusion: Reiki had a positive effect on reducing abnormal blood pressure, suggesting being a complementary technique for the control of hypertension.

Biography

Leia Fortes Salles, RN, PhD is a Post doctorate from the Nursing school of University of Sao Paulo, Sao Paulo, Brazil. She is specialized in Integrative Medicine, Iridology and Flower Therapy. She is the Member of the group of complementary and alternative therapies studies-National Research Council.

Notes:
**In-vivo hepatoprotective efficacy of certain Psidium species extracts and their nano-formulated liposomes**

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Genus *Psidium* (Family Myrtaceae) comprises approximately 150 species of small trees and shrubs in which only 20 species produce edible fruits and the rest are wild with inferior quality of fruits. Most commonly cultivated is the common guava, (*Psidium guajava* L.) and other cultivated species include; Cattely guava (*P. cattleianum* Sabine), the Brazilian guava (*P. guineense* Sw.) and Costa Rican guava (*P. friedrichsthalianum* Nd.). The present study aims to evaluate antioxidant and hepatoprotective activities of chloroform: methanol (80: 20) extracts (CME) of both *Psidium guajava* L. and *Psidium cattleianum* Sabine leaves and their nano-formulated liposomes against paracetamol-induced liver damage in rats. The based nano-liposomes were prepared using thin film hydration method. Biochemical analysis was based on monitoring serum levels of AST, ALT, ALP and total bilirubin. The liver homogenate was used for determination of GSH, MDA. Histopathological alterations were also studied. Significant hepatoprotective effects were observed as evident from decreased levels of AST, ALT, ALP, MDA and total bilirubin as well as restoration of decreased GSH level in the two studied *Psidium* extracts pre-treated groups (250, 500 mg/kg.b.wt) and their respective nano-liposomes (500 mg/kg.b.wt) compared to the diseased group both *Psidium* nano-liposomes showed better activity relative to their extracts in the histopathological study, which was almost comparable to standard silymarin. On the other hand, secondary metabolites profile of *P. guajava* L. and *P. cattleianum* Sabine was also investigated using (UPLC-PDA-ESI-qTOF-MSn). These results provide a promising nutraceutical-approach for the usage of *P. guajava* L. and *P. cattleianum* as hepatoprotectives.

**Biography**

*Maha M Salama* is an expert in Natural products and phytochemistry, and an Associate Professor in Pharmacognosy Department, Faculty of Pharmacy, Cairo University. maha.salama@pharma.cu.edu.eg

**Notes:**
Investigation of tumor inhibitory potential of Anisochilus carnosus (L.F.) Wall against Ehrlich ascites carcinoma- A traditionally used medicinal plant

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Indian habitant Anisochilus carnosus (L.F.) Wall. Lamiaceae, annual shrub is found in hilarious regions of Tamil Nadu, Maharashtra, Karnataka and Rajasthan. Dry leaves of A. carnosus have been studied and flavonoids like luteolin, apigenin, and luteolin-7-glucoside were reported. Traditionally this plant is used to treat respiratory, skin, ulcer ailments. Bhilla tribes of Maharashtra, use its roots for cold, cough and fever. Paliyar tribal community of Tamil Nadu uses the leaf paste to treat skin diseases such as eczema and psoriasis.

Materials & Methods: Swiss albino mice were divided into 7 groups. Group (G) 1 mice (Normal group) received 0.05% acacia gum, G2 mice Disease control. G3 and G4 EAC mice + A.carnosus ethanolic extract i.p. 30 mg/kg and 50 mg/kg b.wt, G5 and G6 EAC mice+ aqueous extract 50 mg/kg and 100mg/kg. G7 EAC mice + Cisplatin (3.5mg/kg b.wt.). Following this, various factors such as tumor volume, tumor cell viability, tumor weight, prolongation of life span and haematological parameters were assessed. From the results obtained it was found there was significant lowering of all the above parameters in EAC bearing mice, considerable prolongation of host life span and restoration of haematological parameters to normal levels. with A. carnosus treatment. This could possibly be attributed to the phytoconstituents present in the plant such as flavonoids, phytosterol, saponins, phenols, tannins and volatile oil. Therefore A. carnosus is a promising alternative to synthetic substances as natural compound and is useful in cancer and prevention treatment.

Biography

Richard Lobo is an alumnus of Manipal College of Pharmaceutical Sciences (MCOPS). He completed his BPharm with distinction in 1999 from Mangalore University, MPharm in Pharmacognosy with 1st rank and PhD in Pharmacognosy in 2003 and in 2009 respectively from Manipal University. He joined teaching in Pharmacognosy in MCOPS in 2004. He has published more than 40 research and review articles in reputed national and international journals, and contributed 2 chapters in two books. He is working as an Associate Editor for BMC Complementary and Alternative Medicine since 2012, as Editorial Board Member for Journal of Pharmaceutical Crops and Current Traditional Medicine – Bentham Science and Journal of Bioequivalence Studies by Annex publishers. He has teaching experience of more than 10 years, guided more than 10 PG students, and presently guiding 3 PhD scholars. He is an external examiner for reputed universities for UG, PG and PhD exams. Presently, he is working as Associate Professor, Department of Pharmacognosy, MCOPS, Manipal University.

Notes:
Anti-acetylcholinesterase activity potential of *Ocimum* essential oils in comparison to its chemical profile via GC/MS and chemometrics

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*Ocimum* (sweet basil) is a plant of considerable commercial importance in traditional medicine worldwide as well as for the flavor and sweets industry. The goal of this study was to examine *Ocimum* essential oils anti-acetylcholinesterase activity and to correlate the activity with their chemical profiles using a metabolome based GC-MS approach coupled to chemometrics. Further, molecular docking was adopted to rationalize for activity found in most active essential oil isolates. Essential oil prepared from 4 species including *O. basilicum*, *O. africanum*, *O. americanum* and *O. minimum* exhibited significant inhibitory activity with an IC₅₀ values (0.22, 0.175, 0.57, 0.152 mg/ml) respectively comparable to that of physostigmine with an IC₅₀ value of (0.27 mg/ml). Monoterpene hydrocarbons constituted the most dominant chemical group among *Ocimum* oils: *O. basilicum* 60.8%, *O. africanum* 90.5%, *O. americanum* 95.4% and *O. minimum* 41.7%, with camphor amounting for ca. 50% in *O. africanum* and *O. americanum*, respectively. Monoterpenoid-derived phenolic ethers (i.e. estragole) constituted the most dominant chemical group among *O. basilicum* and *O. minimum*, whereas camphor (a ketone) was the most abundant in *O. africanum* and *americanum*. Supervised and unsupervised multivariate data analysis clearly separated *O. africanum* & *americanum* from other accessions, with estragole, camphor and to less extent β-linalool contributing for species segregation. Estragole was found the most active AchE inhibitor (IC₅₀ 0.05 mg/ml) followed by cineole (IC₅₀ 0.35 mg/ml), eugenol (IC₅₀ 6.62 mg/ml) and camphor (IC₅₀ 3.263 mg/ml). Molecular docking revealed that these monoterpenoids bind to key amino acids in ACE enzyme catalytic domain similar to well known anticholinesterase drugs i.e., huperzine, physostigmine and aricept and posing them as a novel class of AchE inhibitors.

Biography

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Effects of *Toona sinensis* extracts on oxidative-stress related-factors in sepsis based on RAW264.7 cell line induced by lipopolysaccharide

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**Background:** Sepsis is a leading cause of mortality in intensive care units. Previous studies have revealed sepsis is accompanied with increasing oxidative stress. Toona sinensis (TS), a Chinese medicine, possess a variety of biological activities, including playing as an antioxidant. Therefore, TS extract was selected to investigate its influence on those biological effects of sepsis.

**Methods:** RAW 264.7 cells were pre-treated with various concentrations of TS extracts with or without lipopolysaccharide stimulation. Then the cell levels of superoxide anion, MDA, NO₂, NO₃, NO, GSH, and GSSG, and the activities of GPx, GRx and SOD were evaluated. Additionally, the protein expressions of iNOS and GSTPi were also assayed.

**Results:** Under the lipopolysaccharide exposure, pre-treating with TS extracts, compared to none, could decrease the O₂ generations, and MDA levels. The levels of NO₂, NO₃, NO, GSSG, activities of GPx, GRx, SOD and the expressions of iNOS were also decreased.

**Conclusion:** This study showed that the pre-supplementation of TS extracts could prevent cell damage from lipopolysaccharide exposure through decreasing the oxidative stress by the RAW264.7 sepsis model.

**Biography**

Szu-Ying Wu has completed his undergraduate studies at Chang Gung University and earned his medical degree in 2012. He is a CAM resident at Kaohsiung Chang Gung Memorial Hospital with a major in acupuncture and traumatology. He is the Vice Secretary-General of Taiwan Association of Chinese Medicine and Pharmacy Quality. His research topics focus on low level laser acupuncture and treatment of sleep disorders. Recent clinical interest of Ricky is about sports medicine.

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**Notes:**
Regulation of *Mycobacterium tuberculosis*-infected macrophages autophagy by plant-derived natural products with proteasome inhibitory activity

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Tuberculosis (TB) control faces the lack of new drug. *Mycobacterium tuberculosis* (Mtb) is a typical intracellular bacterium. It can inhibit autophagy to survive by intervening in the fusion of phagosome with lysosome. More and more evidences suggest that autophagy is very important in the clearance of intracellular Mtb, and it becomes to be an effective target for treatment of TB. So, how to enhance autophagy in order to kill intracellular bacteria? Eukaryotic cells have two protein degradation systems: ubiquitin-proteasome system and autophagy-lysosome system. Accumulating data suggest that autophagy is activated as a compensatory mechanism upon proteasome activity is impaired. Some plant-derived natural products with proteasome inhibitory activities were found in our previous study, and these products can enhance the activities of autophagy, and the clearance of intracellular Mtb. The status quo is that research and development of anti-TB drugs still focus on the inhibition and killing Mtb itself. According to the characteristic of intracellular bacterium, it may be an effective way to explore how to regulate the host macrophage protein degradation systems to clear intracellular Mtb. The discovery of new drugs on regulating autophagy will open a new window to shorten the TB treatment and relieve the thorny situation of MDR, as well as provides a beneficial attempt for the development of new anti TB drugs.

Biography
Xin Jiang has completed her PhD from Harbin Medical University and Postdoctoral studies from Fudan University and visitor scholar from The Johns Hopkins University. She engaged in natural products research on Mtb for more than ten years. She has published more than 10 papers in reputed journals.

Notes:
Effects of manual acupuncture on bowel motility in normal Kunming mouse

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To observe the effects of acupuncture on motility of jejunum and distal colon at different acupoints on normal Kunming mice. Changes of bowel were compared with the background activity recorded before any stimulation. The chosen acupoints were as follows: Zusanli (ST36) on the lower legs, Tianshu (ST25) on the mid-lower abdomen. Manual acupuncture (MA) at Zusanli (ST36) significantly promoted the motility of jejunum and distal colon (manifested as increased change rate of average amplitude and increased change rate of mean area under the contractile curve) of normal Kunming mice (P<0.01). Manual acupuncture at Tianshu (ST25) significantly inhibited the motility of jejunum (manifested as decreased change rate of average amplitude, decreased change rate of mean area under the contractile curve, and the reduced frequency) of normal Kunming mice (P<0.01), while significantly increased the distal colonic motility (manifested as increased amplitude and increased mean area under the contractile curve) of normal Kunming mice (P<0.01). In conclusion, manual acupuncture at specific acupoints (ST36, ST25) has different effects on the motility of jejunum and distal colon, which might involve the segmental innervations of the related nerve.

Biography

Yuxue Zhao has completed her PhD from China Academy of Chinese Medical Sciences. She is a Research Assistant at Acupuncture and Moxibustion, China Academy of Chinese Medical Sciences.

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Notes:
Potential anti-skin aging effect of *Nelumbo nucifera*

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Skin, which covers the entire outer surface of the body, is the largest organ. In humans, the skin interfaces with the environment and is the first line of defense against external factors. And also it plays key part in the barometer of anti-aging these days. For these reason, skin care is one of the fastest growing areas of cosmetic industry, in the twenty-first century. We have focused on the anti-aging effect of the extracts from *N. nucifera* on the anti-wrinkle and whitening activities. When the procollagen and elastase inhibition assay were measured, the fruit extract of *N. nucifera* had a concentration-dependent effect on procollagen synthesis. And all parts, leaf, fruit, and embryo of *N. nucifera*, had elastase inhibition activity. In the whitening assay, we found that melanin synthesis was reduced in cell treated these extract of fruit and embryo from *N. nucifera*. In conclusion, the extracts of *N. nucifera* overall had excellent properties. In addition to the anti-wrinkle, and whitening activities, all the *N. nucifera* extracts displayed excellent and desirable cosmetic properties. Thus, *N. nucifera* provides many cosmetical ingredients.

Biography
Eun Sil Kim belongs to National Institute of Biological Resources as a researching official, and she’s in charge of establishment and management of Wildlife Natural Products Bank of the Ministry of Environment.

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Notes:
Establishment and management of natural products bank from wildlife

Eun Sil Kim, Kyounghee Oh and Byung-Jik Kim
National Institute of Biological Resources, Korea

Ancestors greatly depended on local flora and fauna for their survival and would experiment with various fruits, roots, animal parts and minerals to find out what effects they had. As a result, broadly-based biological resources have been used as therapeutic agent or their raw materials for long periods of time and are as relevant today as ever. Particularly the Nagoya Protocol on Access and Benefit-sharing is an innovative multilateral environmental agreement, which has considerable implications for the rights of indigenous peoples and local communities, for research and commercial development activities in various sectors, as well as for food security, health, trade, oceans, and development cooperation. Therefore, the government-driven, National Institute of Biological Resources in Korea (NIBR), declared establishment of infrastructure for natural products bank is necessary for the recognition of our right on biological resource. Natural products may be extracted from tissues of terrestrial plants, marine organism or microorganism fermentation broths. A crude extract from any one of these sources typically contains novel, structurally diverse chemical compounds, which the natural environment is a rich source. NIBR developed and established the natural products bank of biological resources from wild, uncultivated populations for the first time in Korea. It is well recognized that there is a high correlation among identification, collection, extraction of the biological resources for research on natural products. Hence approximately 500 accessions were collected and 2178 extractions were prepared of biological resources in company with taxonomists and researchers of natural products. Furthermore, NIBR ensured the standardized application of preconditioning process and extraction protocol for mid/long term management. And a stock of extraction is maintained as dry powder according to the standardized procedure. These standardized and normalized extracts are far quicker and easier to screen and analyze than self-extraction, and then will be used for the raw materials of application of industrialization.

Biography

Eun Sil Kim belongs to National Institute of Biological Resources as a researching official, and she’s in charge of establishment and management of Wildlife Natural Products Bank of the Ministry of Environment.

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Notes:
Micheliolide inhibits LPS-induced production of Proinflammatory cytokines and Type I IFN in macrophages through PI3K/Akt/p70S6K pathway

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3Second Military Medical University, China

Sepsis is still a major cause of fatality in the intensive care unit worldwide. Sepsis involves an uncontrolled inflammatory response by the host immune cells that may result in multi organ failure, DIC and even death. Micheliolide (MCL), a compound of sesquiterpene lactone was reported to inhibit DSS-induced inflammatory intestinal inflammation, colitis-associated cancer and rheumatic arthritis. But, there was no report about whether MCL plays an important role in microbial infection. In this study, we demonstrated that MCL decreased lipopolysaccharide (LPS)-mediated production of interleukin 6 (IL-6), tumor necrotic factor-α (TNF-α), MCP-1 and IFN-β in Raw264.7 macrophage cell line. Also, the same anti-inflammatory role of MCL was detected in primary peritoneal macrophages. Through screen of the signaling transduction, MCL negatively regulated the PI3K/Akt/p70S6K pathway especially dephosphorylating the site of Ser473 on Akt and the site of Thr389 on p70S6K. Meanwhile, MCL has negligible impact on the activation of ERK, JNK, p38 MAPKs and NF-κB pathways. Collectively, our data illustrated that MCL can help to maintain immune equilibrium by down-regulating the production of proinflammatory cytokines, chemokine and type I interferon in TLR4 signaling and thus diminish host damage. MCL may be a new potential immunosuppressive and anti-inflammatory agent in treatment of gram-negative bacterial infection.

Biography

Yuejuan Zheng has completed her PhD from Zhejiang University and Postdoctoral studies from National Key Laboratory of Medical Immunology & Institute of Immunology, Second Military Medical University. She has engaged in the research on the anti-inflammatory roles and mechanisms of natural products for more than six years. She has published more than 8 papers in reputed journals.

Notes:
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Anti-inflammatory effect of mixture of Jingyoganghwaltang and Cheongsimhwan on Croton oil induced hemorrhoid model in rat

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Hemorrhoids are one of the most common diseases in humans. About half of the people older than age 50 years have symptomatic hemorrhoids. Swelling and inflammation are typical hemorrhoid symptoms. In Traditional Korean Medicine, Jingyoganghwaltang and Cheongsimhwan have been used to treat diseases in anal fistula. Cheongsimhwan reduces a fever and has anti-inflammatory effects. This study investigated the effect of a mixture of Jingyoganghwaltang and Cheongsimhwan on croton oil induced hemorrhoid model in rats. Male rats aged 6 weeks were divided into three groups: Control, Croton oil stimulated group, and drug (a mixture of Jingyoganghwaltang and Cheongsimhwan) treated group. After three days of drug treatment, the animals except the control group were stimulated for 60 seconds by inserting the croton oil mixture (DW:pyridine:diethyl ether: 6% of croton oil in diethyl ether=1:4:5:10) into the anus. After 4 hours, all rats were sacrificed under deep anesthesia, and retro-anal tissue was excised for histological, immunohistochemical analysis and western blotting. The weight of retro-anal tissue of the drug treated group was decreased to 86.4±2.9% (compared to 100% of the croton oil treated group). In a histological study of rectro-anal sections, severe inflammation can be observed in the croton oil treated group, and the drug treated group showed the reduction of inflammation. Additionally, the drug treated group showed the decrease in contents of ICAM1, MMP2 and MMP9 compared to the croton oil stimulated group. These results suggest that the treatment with Jingyoganghwaltang and Cheongsimhwan demonstrates the anti-inflammatory effects in croton oil induced hemorrhoid model in rats.

Biography
Jong-Cheng Mou has completed his PhD and Postdoctoral studies in College of Korean Medicine, Semyung University. He majored in Korean Medicine and published several papers in reputed journals. After graduation, he manages the clinic of Korean Medicine in Korea. He has taught Korean Medicine to students in College of Korean Medicine, Semyung University.

Notes:
Diabetes

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Diabetes is the syndrome of sugar, protein, fat, water and electrolyte metabolic disorder that occurs when the body cannot produce enough or effectively use insulin, and it can be assigned to Emaciation-Thirst Disease in Traditional Chinese Medicine (TCM). According to the basic understanding of TCM and pathophysiological knowledge of western medicine, it can be found that pathogenesis of type 2 diabetes mellitus (T2DM) is the combination of protective qi deficiency, dampness and phlegm, blood stasis and inner heat due to disorders of liver, spleen and kidney function. Based on the characteristic of pathogenesis, Prof. Sihua Gao puts forward the conception of “treatment for T2DM by regulating liver, spleen and kidney together”, and prescribes three formulas of Chinese herbs which are named jiangtangxiaoke formula I, formula II, and formula III. All of the above prescriptions have good clinical efficacy. Furthermore, jiangtangxiaoke formula I used should be nourishing kidney, supplemented by tonifying spleen soothing liver, reinforcing both qi and yin, and activating blood. Jiangtangxiaoke formula II used should be soothing liver, supplemented by tonifying spleen nourishing kidney, regulating qi and clearing heat. Jiangtangxiaoke formula III used should be tonifying spleen, supplemented by soothing liver nourishing kidney, reinforcing qi and removing dampness. Meanwhile, Prof. Gao proposes the whole thinking of T2DM prevention. A series of specific methods are presented, such as self-psychological adjustment, reasonable dietary habit, appropriate exercise program and choosing the right music and the aim is to tonify spleen, soothe liver and nourish kidney. Thus it can be seen that “treatment for T2DM by regulating liver, spleen and kidney together” integrates Chinese medicine with modern medicine. And this idea enriches scientific basis of TCM, offers a new thought for understanding the mechanism, and plays an important role in diagnosis, prevention and control, treatment as well as development of effective drugs for T2DM.

Biography

Fangfang has completed her MD in 2012 from Beijing University of Chinese Medicine (BUCM), School of Basic Medical Sciences with Prof. Sihua Gao as her teacher. In the same year, she became a lecturer in BUCM, and she is working on research of correlation between Zang and Fu organs in TCM and diabetes prevention and treatment with Chinese herbs based on integrating Chinese medicine with modern medicine. She has published more than 10 papers in journals.

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Notes:
Toxopathological effects of *Ambrosia maritima* (Asteracae) in Sudanese Nubian goats

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Toxicity of indigenous plant *Ambrosia maritima* was investigated. Twenty four, 6-8 month old, 12 female and 12 male of Sudanese Nubian goats were used. Dried leaves powder of *Ambrosia maritima* were mixed with water and given orally by drench to the animals at a dose of 1000 or 2000 mg/kg/day for 18 week. Two females drenched with the plant at a dose of 1000 mg/kg/day, died at day 8 and 9 post treatment and one female drenched with the plant at a dose of 2000/kg/day died at day 13. The results revealed that female goats drenched with the plant for 18 weeks, showed chronic toxicity evident by clinical symptoms, pathological and biochemical changes. The main symptoms were watery diarrhea, inappetance, respiratory distress and depression. Later these symptoms disappeared and the animals appeared healthy. The most evident pathological features were hydrothorax, hydroperitonium, hydropericardium and enlargement of the liver. Histopathological changes were exemplified by degeneration and necrosis of the hepatic cells. The various changes noticed are focal necrosis, congestion and haemorrhag of proximal convoluted tubules, necrosis of intestinal vili with severe infiltration of inflammatory cells, and congestion of alveolar capillaries and pancreatic hyperplasia. These changes were correlated to the activity of Asparate Aminotransferase (AST), Alkaline phosphate (ALP), the concentration of cholesterol, sodium and potassium in the serum, and with the haematological values. The effect of the plant on males was less marked compared to that on female goats. There was gradual increase in mean body-weight of both sexes.

**Biography**

Ilham M O has completed here PhD from Sudan Academy of Science (SAS) Khartoum, Sudan. She is senior researcher in Veterinary Research Institute (VRI), Animal Resources Research Corporation (ARRC), Ministry of Livestock, Fisheries and Rangelands, Khartoum, Sudan. She attended the 2nd & 3rd International Conference and Exhibition on Traditional Medicine-2014, published more than 20 scientific papers in reputed journals.

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**Notes:**
Cardiac imaging study on acupuncture treating the pig model of Chronic myocardial ischemia

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Clinical practice shows that acupuncture at Neiguan point can relieve angina of coronary heart disease, but its mechanism is unknown. Various cardiac imaging tools, including ECG, ultrasound, CT and MR were used to visualize how acupuncture improves chronic myocardial ischemia. Ten healthy Chinese miniature pigs were recruited in this experiment. All were operated by implantation of Ameroid narrow ring around the superior-middle part of the left anterior coronary artery and became the models of chronic myocardial ischemia after 4 weeks. 5 cases were dead due to heart failure after 3 weeks of post operation. However, another 5 survived cases participated in the acupuncture experiment. Each case was embedded with needle in the Neiguan point on the right anterior limb. The treatment lasted for 2 weeks. All imaging measurements were conducted before and after acupuncture treatment. 4 weeks post operation, 5 cases were found pathological Q wave of ECG, 2 cases of anterior wall of left ventricle, 2 cases of anterior-medial wall, the anterior-lateral wall in 1 case. R wave was showed in lower or flat. Ultrasound, CT and MR of Cardiac imaging showed the reduced left ventricular ejection fraction from 5 to 50%. After 2 weeks’ treatment of acupuncture at Neiguan, 4 cases showed the decreased heart rate. R wave was higher than before and the left ventricular ejection fraction increased from 10% to 50%. But 1 case showed no obvious change. The needle embedding therapy at Neiguan point improves the chronic myocardial ischemia state in pig model.

Biography
Jiliang Fang has completed his PhD from Institute of Acupuncture and Moxibustion, China Academy of Chinese Medical Sciences and Postdoctoral studies from Massachusetts General Hospital & Harvard Medical School. He is the Deputy Director of Department of Radiology, Guang’anmen Hospital, China Academy of Chinese Medical Sciences. He has published more than 15 papers in international reputed journals in imaging study on acupuncture.

Notes:
UV irradiation damages skin cells by the photochemical generation of reactive oxygen species (ROS) that damages nucleic acids, lipids, and proteins, including collagen. UVB light is mainly absorbed in the epidermis, which impairs the synthesis of collagen and induces matrix metalloproteinases (MMPs), and hence contributes to wrinkle formation. Antioxidants protect skin from free radicals, thus fighting the signs of aging. The antioxidant capacity of the ethanolic extract of the leaves of Morus alba and Morus nigra was evaluated applying: 2,2-diphenyl-1-picryl-hydrazyl (DPPH), 2,2’-azino-bis (3-ethylbenzo-thiazoline-6-sulfonic acid), diammonium salt (ABTS•+), ferric reducing antioxidant power assay and ferrous ion-chelating assay. The anti-wrinkle activity was assessed by subcutaneous administration of EAR/15 weeks in UVB irradiated mice then measuring wrinkle score, MMP-2 & MMP-9 gene expression, in addition to, measuring skin thickness and elasticity histologically. M. alba and M. nigra leaves showed high free radical scavenging activity against DPPH with IC50 494 and 726 µg/ml, respectively, and against ABTS•+ with IC50 765.69 and 897.66 µg/ml, respectively, both leaves also showed high Fe3+ and Fe2+ chelating ability. Anti-wrinkle results revealed that M. alba and M. nigra leaves inhibited MMP-2 expression (0.6±0.04 and 0.54±0.08, respectively), MMP-9 (0.78±0.06 and 0.68±0.08, respectively) and low wrinkle score (2.65±0.42 and 2.44±0.48, respectively), these results were significant with respect to the diseased group which showed 0.72±0.08, 1.28±0.2 and 3.70±0.23 for MMP-2, MMP-9 and score wrinkles. The metabolic profile of the ethanolic extracts of both leaves was studied using LC-MS technique. The high antioxidant activity of the standardized EAR is responsible for its anti-wrinkle activity and hence could be incorporated in skin formulations, based on its antioxidant activity.

Biography
Mai M Raslan has completed her PhD in 2011 from Cairo University, Faculty of Pharmacy, Egypt. She is the Director of Quality Assurance unit in Faculty of Postgraduate Studies for Advanced Sciences, Beni-Suef University, Egypt.

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Protective effects of *Boehmeria nivea* against oxidative stress in C6 glial cells

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²Pusan National University, Republic of Korea
³Biomedic Co. Ltd., Republic of Korea
⁴Yeong-Gwang Agricultural Technology Center, Republic of Korea

We investigated 9 kinds of ramie (*Boehmeria nivea*, (L.) Gaud., Bn; hereafter denoted as Bn) for their protective action against oxidative stress in a cellular system using C6 glial cells. We observed loss of cell viability and high levels of ROS generation after treatment with H2O2 and Aβ25-35. However, treatments with Bn extracts led to an increase in cell viability and decrease in ROS production induced by H2O2 and Aβ25-35. In particular, the extracts of Bn-02 (seobang variety from Seocheon) and Bn-90 (local variety from Yeonggwang) showed excellent anti-oxidative properties. This indicates that Bn extracts could prevent neurodegeneration by reducing oxidative stress in cells.

Biography

Sanghyun Lee is currently working as Head of Department of Integrative Plant Science, Chung-Ang University, Korea. In 2003-2005, he was a Research Professor in Biohealth Product Research Center, Inje University, Korea. In 1997-2002, he was a Chief Researcher, Natural Product Research Institute, Seoul National University, Korea. He did his PhD in Seoul National University (Major: Natural Product Chemistry, 1997-2002) Korea, and MS in Kyungpook National University (Major: Medicinal Plant, 1993-1996) Korea and BS in Kyungpook National University (Major: Agronomy, 1988-1993) Korea.

Notes:
Change of radial pulse under thermal stresses

Jang-Han Bae, Jaeuk U Kim and Boncho Ku
Korea Institute of Oriental Medicine, Republic of Korea

Physiological responses of thermal stressed human occur mainly by autonomic nervous reaction (ANR) and those are reflected on radial pulse. This study aims to explore the effects of thermal stresses (TS) on radial pulse and investigate some indicators which can reflect ANR. 60 subjects aged from 20 to 29 were enrolled and both feet of subjects were immersed into 15°C water for cold stress (CS) and 40°C for heat stress (HS) with 2x2 crossover design. Radial pulse and respiration signal were recorded before the TS, during the TS for 5 minutes and immediately after the TS. Eight parameters to access the effects of TS were evaluated with adjusted mean of differences with Bonferroni correction. As a result, pulse power was increased and pulse depth was decreased under the CS, and subendocardial viability rate was increased under the HS. There were no significant differences of pulse rate under the three time thermal sequences, on the other hand, respiration rate was increased (p<.05) and pulse rate per respiration was significantly decreased under the CS (p<.01). It demonstrated the pulse rate per respiration was shown to be more appropriately associated with the ANR than the pulse rate or respiration rate alone under the TS. In addition, higher spectral energy region of pulse was represented to be a potential indicator for ANR during the TS. This clinical study shows that potential possibility of several parameters as simple indicators for ANR.

Biography
Jang-Han Bae completed a master’s degree in Biomedical Engineering and he is taking a Doctorate course in the Department of Mechanical Engineering at KAIST. He has been developing pulse tonometric device at Korea Institute of Oriental Medicine since 2010. His research interest is pulse diagnosis using signal processing and diagnostic algorithm.

Notes:
Four plants namely, *Allium sativum* (Garlic), *Allium cepa* (Onion), *Citrus limon* (Lemon) *Zingiber officinale* (Ginger) and samples of Honey, *Nigella sativa* (Black seed) oil, *Olea europaea* (Olive) oil, Zam Zam water and Camel’s urine were tested for the antibacterial effect on six clinical isolates viz: *Escherichia coli*, *Staphylococci aureus*, *Bacillus subtilis*, *Klebsiella pneumoniae*, *Micrococcus luteus* and *Proteus*. The crude extracts of Garlic, Lemon, Onion and Lemon were filtered by sterilized Whatman filter paper No 1 under aseptic conditions. The filtered extracts and samples of Honey, Black seed oil, Olive oil, were tested for antibacterial effect by well diffusion technique and the zone of Inhibition was compared with standard antibiotics viz: Ampicillin, Chloramphenicol, Erythromycin, Cefoxitin, Penicillin, Streptomycin, Sulphafurazole, and Tetracycline. The zone of inhibition produced by the samples was compared with that of standard antibiotics. Honey was found to possess more antibacterial properties than any other antibiotic against *E. coli*, *Micrococcus* and *Staphylococcus*. Garlic was found to possess more antibacterial properties than any other antibiotic against *Proteus*, *Micrococcus* and *Staphylococcus* and it has better activity than Tetracycline and Sulphafurazole against Klebsiella. Lemon exhibited better antibacterial effect against *Bacillus* than Tetracycline. Honey, Garlic and Onion were able to inhibit *Micrococcus* effectively which was resistant to all of antibiotics under study. Camel's urine was active against *E. coli*, *Bacillus*, *Micrococcus* and *Staphylococcus*. This study confirms scientifically that the foods and other traditional medicine stated in Quran and a hadiths have a scientific basis for the treatment of diseases.

Biography

Mohammad Sadat Ali has completed his MSc (Microbiology) from Babasaheb Ambedkar Marathwada University and MPhil Annamalai University. He is currently working as a Microbiology Lecturer at A’Sharqiyah University, Oman. He has published 2 papers in reputed journals. He is pursuing Hijama Cupping Therapy (Dip.HCT) from Hijamanation, United Kingdom and has been doing research in Islamic medicine focusing on Screening of Antimicrobial activities and isolation of bioactive compounds from the medicinal plants mentioned in prophetic medicine (Tibb an Nabawi), Camel urine, Camel Milk, Honey and Hijama therapy (Cupping Therapy).

Notes:
Aldose reductase inhibitors from *Perilla frutescens* var. *japonica*

Jaemin Lee¹, Jeong Min Lee², Myoung-Hee Lee³, Ki Won Oh³, Eun Ju Cho³ and Sanghyun Lee¹

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To investigate the therapeutic activities of compounds from natural plant source, the seeds of *Perilla frutescens* var. *japonica* were tested for inhibition of aldose reductase inhibition (ARI). The EtOH extracts of *P. frutescens* var. *japonica* were tested ARI. Additionally, stepwise polarity fractions and compounds from *P. frutescens* var. *japonica* were exhibited ARI. The compounds were identified as luteolin (1), apigenin (2), diosmetin (3), kaempferol (4), β-sitosterol (5), and daucosterol (6) by NMR. As a result, the EtOAc fraction and flavonoids (compounds 1-4) showed good ARI. Our results expect that the seeds of *P. frutescens* var. *japonica* could be useful and helpful ARI materials against various diabetic complications.

Biography

Jaemin Lee is a graduate student at Chung-Ang University, Republic of Korea.

Notes:
The traditional health care and healing by folk medicine in North of Thailand: Case study of folk medicine in Phetchabun province

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The traditional health care and healing by folk medicine was established on the basis of the relationship between human and nature, human to human. Health care and Health medicine at the local of Thailand had compassion and faith in Buddhism. The objective of this research was to study local wisdom of health care and traditional herbs usage of community in north of Thailand: Case study of folk medicine in Phetchabun province. The key-informants were 25 folk medicine, as well as 25 people chosen by purposive sampling. Data collection was in-depth interviews and observation. Data analysis was performed through content analysis. The finding were as follows: 1) Local wisdom of health care and healing by folk medicine which included Herbal therapy, Massage therapy, Psychotherapy and Blowers therapy. The treatment procedures are mostly mixed, usually involving “blowing methods” combined with other types of treatment. The blowing method used magical spelling and prayers with betel-chewing. The betel-chewing was the traditional herbs and ancient cultures in Thailand and Southeast Asia. A betel quid consist of four components: betel leaf, areca nuts, slaked lime and Acacia catechu Willd. These traditional herbs were health medicine. Health conditions and symptoms that folk medicines often and successfully treat were colic, inflamed wounds, herpes zoster and viral conjunctivitis. 2) The local wisdom of herbal usage: Classification of herbal 2 types was 81 herbal medicine and 21 herbal medicine and food. The herbal plants used were those found or grown in the village and community forest.

Biography

Namfon Baowthongkum has completed her Master degree from Ramkhamhang University. She has published 2 papers in reputed journals and has been serving as an Editorial Board Member of repute.

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Notes:
Aldose reductase inhibition of valeriana fauriei

Jaemin Lee1, Sang-Won Lee2, Young-Ock Kim2, Chun-Geun Park3, Young-Seob Ahn4, Hak_Jae_Kim4 Hak-Jae Kim4, Ik-Hyun Cho4 and Sanghyun Lee1

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2NIHHS, RDA, Republic of Korea
3Soondunhyang University, Republic of Korea
4Kyung Hee University, Republic of Korea

To evaluate therapeutic potentials of aldose reductase (AR) inhibition, the rhizomes of Valeriana fauriei were tested for inhibition of AR. The EtOH extracts of V. fauriei were exhibited AR inhibition. Additionally, the stepwise polarity fractions of V. fauriei were exhibited AR inhibition on rat lens. Of these, the ethyl acetate (EtOAc) fraction was showed highest AR inhibition with IC50 value of 1.86 μg/ml. In this result, we demonstrate that V. fauriei could be a useful natural source and development of a new AR inhibitory agent against diabetic complications.

Notes:
A multisite international study of Tennis elbow

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Acupuncture has been used for improving lateral epicondylitis. An international, multisite trial was conducted recently to assess the efficacy of acupuncture treatment for tennis elbow. The trial is called Tennis Elbow Acupuncture-International Study-China, Hong Kong, Australia and Italy, or TEA-IS-CHAI, and it involves four institutions (Changchun University of TCM, China, Hong Kong Baptist University, University of Technology, Sydney and Istituto Paracelso-Italy) across four countries and regions with the World Federation of Acupuncture and Moxibustion Societies (WFAS) being the coordinator. After completion of a pilot study to determine the appropriateness of the trial design and sample size, a randomized, placebo controlled, patient and assessor blinded clinical trial with two parallel arms have been used to evaluate the efficacy of a standardized manual acupuncture intervention on lateral elbow pain (Tennis Elbow). Ninety-six subjects were divided randomly into two groups. In the treatment group, 47 patients received manual acupuncture for three weeks, with three treatments per week, whereas in the control group 49 patients received inactive laser acupuncture for the same frequency and duration. We evaluated pain and function outcomes using the disabilities of the arm, shoulder and hand (DASH) questionnaire, pain free grip strength (PFGS) and a visual analogue scale (VAS) for pain. We found significant differences in DASH score and VAS between treatment and control groups. No severe adverse event was found. Results from this study have provided evidence for the use of acupuncture for LEP.

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Notes:
e-Posters

Traditional Medicine-2015
To analogize and substantiate the application of *Moringa oleifera* and *Tamarindus indica* leaves as “kattu” in treatment regimen of swollen joints

A Faridha, C Mary Sharmila and S Yamini Priyadharsini  
Government Siddha Medical College, India

**Introduction:** Siddha system, a traditional system of medicine in India which has the history of more than 4000 years, is based on five elements and mei gyanam. Traditional application of commonly available plants has been in use in day to day life. The leaves of *Moringa oleifera* and *Tamarindus indica* are widely used for external applications in treating swelling. The impact of arthritis is a debilitating issue and the adverse effects of swollen joints can be reduced by the external application of the above said herbs.

**Objective:** The external application of *Moringa oleifera* and *Tamarindus indica* as kattu for arthritis is done as a comparative and evidence based study.

**Methodology:** Leaves of *Moringa oleifera* and *Tamarindus indica* are made into paste separately. Six patients from IPD of GSMC, Palayamkottai were chosen and separated as two groups with three patients each. One group received the kattu application with *Moringa oleiefera* leaves and other group with *Tamarindus indica* leaves and observed for 10 days simultaneously. The parameters of arthritis viz. joint tenderness, swelling, pain scale, stiffness were monitored before and after treatment.

**Results:** Assessment of patients based on the numerical rating scale for pain and stiffness with the application of two types of medications revealed a marked prognosis in the context of swelling, stiffness, movement restriction with *Tamarindus indica* than *Moringa oleiefera*.

**Conclusion:** Though the above said herbs are indicated for swelling in Gunapadam mooligai vaguppu, Siddha Materia Medica, this study clearly states that *Tamarindus indica* has higher potency by exerting its action in a short duration and a high analgesic effect.

Notes: 

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Identification of compounds from *Anagallis arvensis* L. with inhibitory activity against *Candida albicans*

Soberon Jose Rodolfo1,2, Pastoriza Ana Cristina1, Sgariglia Melina Araceli1,2, Carrasco Juarez1, Maria Belen1, Jager Sebastian2, Labadie Guillermo2, Sampietro Diego Alejandro1,2 and Vattuone Marta Amelia2

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The antifungal activity of *Anagallis arvensis* L. (Primulaceae) extract was evaluated against *Candida albicans* (ATCC 10231), alone and in combinatory experiments. Disk diffusion, checkerboard and viable cell count assays were employed to determine the effect of samples and combinations of fluconazole (FLU) samples against *C. albicans*. The tincture (i.e. ethanolic extract) exhibited the highest antifungal activity among the assayed samples. This extract was subjected to activity guided isolation experiments, including liquid-liquid extraction and column chromatography on Silica Gel, which yielded an antifungal fraction named G5. G5 showed antifungal activity against *C. albicans*, with a Minimum Inhibitory Concentration (MIC) = 500 mg of extracted material (EM) L⁻¹. The Fractional Inhibitory Concentration (FIC) = 0.258 indicated synergistic effect for G5 (125 mg EM L⁻¹) + FLU (0.5 mg L⁻¹) against *C. albicans*. FLU + G5 combination showed fungicidal effect against this strain.

Four triterpenic saponins derived from oleanolic acid were identified from G5: Anagallisin A, B, C and deglucoanagalloside A. Anagallisin C was the main constituent of G5. Our findings suggest that these compounds would be of interest for further studies dealing with chemical modifications to increase the activity and diminish the fungal resistance to the commercial antifungal drugs.

Biography

Soberon Jose Rodolfo has completed his PhD from Universidad Nacional de Tucuman (UNT) - Argentina. He is Adjunct Professor at UNT, and Researcher from CONICET. He has published more than 17 papers in reputed journals and more than 100 communications to scientific meetings.

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Notes:
Anti-inflammatory effect of Hedgehog’s skin extraction LPS-stimulated RAW 264.7 cells

Kang Hyun Leem and Myung Gyou Kim
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The hedgehog’s skin is one of the Korean medicines for hematochezia and hemorrhoids. It has been known to have the effect of calming the adverse-rising energy and stopping bleeding. This study investigated the anti-inflammatory effect of the hedgehog’s skin extract on RAW 264.7 cells. 70% ethanol extracts of the hedgehog’s skin were prepared and treated on LPS-stimulated RAW 264.7 cells for 24 hours. The production of nitric oxide was assayed in the culture medium of the cells and the expression of pro-inflammatory proteins such as inducible nitric oxide synthase (iNOS), cyclooxygenase-2 (COX-2), extracellular signal-regulated kinase 1/2 (ERK 1/2), phosphorylated ERK1/2, c-Jun N-terminal kinase 1/2 (JNK 1/2), and phosphorylated JNK 1/2 were detected by Western blot analyses. The extract of the hedgehog’s skin suppressed LPS-induced nitric oxide productions, and it reduced the expression of COX-2 and iNOS. Also, it inhibited the phosphorylation of ERK1/2 and JNK in LPS-stimulated RAW 264.7 cells. These experiments suggest that the extract of the hedgehog’s skin has an anti-inflammatory activity through the regulation of the mitogen-activated protein kinase pathway in LPS-stimulated RAW 264.7 cells.

Biography
Kang Hyun Leem is the Director of Department of Herbal Pharmacology, College of Korean Medicine, Semyung University.

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Notes:
An analysis on the effect of pattru-topical application with Kaatu seeragam (*Vernonia anthelmintica willd*) in the treatment of Karappan (atopic dermatitis) - A single case study

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Government Siddha Medical College, India

**Introduction:** *Vernonia anthelmintica willd* (kaattu seeragam) is a common herb found in India. Its medicinal properties to act on the skin have been hailed in the traditional system of Siddha Medicine. Myriad studies stand testimonial to the anti-inflammatory and anti-microbial activities of *Vernonia anthelmintica willd* (kaattu seeragam). It is also a promising commercial and industrial crop.

**Objective:** A single case study to analyze the proficiency of *Vernonia anthelmintica* (kaattu seeragam) as pattru in the treatment of karappan (atopic dermatitis).

**Methodology:** *Vernonia anthelmintica willd* (kaattu seeragam) seeds grounded with lemon juice can be used as pattru in the management of skin diseases, as indicated in siddha Materia Medica. To confirm the theory, a single case study was attempted with application of kaattu seragam as pattru for karappan (atopic dermatitis). The vigor of the drug was monitored using the SCORAD score for atopic dermatitis. A patient with karappan (chronic atopic dermatitis) for more than 20 years was chosen. The patient had severe atopic dermatitis with the SCORAD score of 55.7. The kaatu seeraga (*Vernonia anthelmintica willd*) pattru was topically applied for 10 days and changes were observed.

**Result:** Significant change in the SCORAD score was observed which indicates a dramatic decline, from a severity score of 55.7 to a moderate score of 29.5 in a period of 10 days.

**Conclusion:** Kaatu seeragam (*Vernonia anthelmintica willd*) pattru can be effectively implied in the management of karappan (atopic dermatitis), proving the context of the medicinal property of the drug, for treating skin disease as quoted in Siddha Materia Medica.

Notes:
Review on therapeutic potential of *Cynodon dactylon* (Linn) Pers

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Herb *Cynodon dactylon* (Linn) Pers commonly known as *Arugu*, belongs to Graminae family. It is the most sacred plant of Hindu religious next to *Tulasi* (*Ocimum sanctum*). It is a perennial creeping grass, rooting at every node, forming matted tufts. A number of chemical constituents and various therapeutic uses of *C. dactylon* have been reported by different researchers. The herb contains crude proteins, carbohydrates, and mineral constituents, oxides of magnesium, phosphorous, calcium, sodium and potassium. The whole plant affords β-sitosterol and β-carotoene. Other compounds like vitamin C, cartone, palmitic acid, triterpinoids, alkaloids, ergonovine and ergonovinine and other miscellaneous compounds have been isolated from this herb. Various phytochemical and biological evaluations have been reported in the literature for the effectiveness of the *C. Dactylon*. Therefore it has been used in Traditional Medicine to utilize it medicinal properties including anti-inflammatory, wound healing, anti bacterial, antidiabetic, anti tumor, anti ulcer, anti oxidant or chemo preventive, anti-venom, Antipyretic and analgesic, diuretic and immunomodulatory activities. The presented review summarizes the information concerning the botany, phyto chemistry, pharmacology, biological activity and medicinal properties of *C. dactylon* herb. For the last few decades or so, extensive research works have been done to prove its biological activities and the pharmacology of its extracts. The aim of this review is to create database for further investigations of the discovered phytochemical and pharmacological properties of this plant to utilize the medicaments this will help in confirmation of its traditional use along with its value added utility, eventually leading to higher revenues from the plant.

Biography

Balamanohary Uthayanan completed Bachelor of Siddha Medicine & Surgery (BSMS) University of Jaffna. He successfully completed Staff Induction Training Programme which consisted of Educational Technology University System, Ethics & Professionalism and Research Methodology conducted by The Medical Education Unit, Faculty of Medicine, University of Peradeniya from 2012 to 2013. He successfully completed the certificate course on yoga at Sooriya Yoga, Yoga Therapy and Studies Centre. His research interests includes: Basic philosophy, social and preventive care of Siddha medicine, quality assessments of Siddha drugs and plants and clinical study.

Notes:
To validate the siddha pathology of nasal disease in relation with microcosm

S Yamini Priyadharsini, A Faridha and C Mary Sharmila
Government Siddha Medical College, India

Among the traditional medicines in India, Siddha system of medicine is well pronounced with the basic principles of nature and its elements, which are renowned by the scientific sages named Siddhars. Finding the cause of an illness is the basic goal of siddha system. The exact cause of the disease is diagnosed well using eight tools designed by sage Yugimuni. "Noi naadi noi mudhal naadi athu thanikum, Vaai naadi vaaipa seyal"-Thirukkural; Athigaram-95; Kural-948

About 60% of patients in the world are suffering from nasal disease especially the nasal block. In this condition, respiration cannot be done properly to meet their life energy and patients with such illness have stress, prompt difficulty in carrying out their normal routine life. It is consequently important to get rid of such nasal disease by knowing its pathogenesis. Human body should be sturdy to bear our vital force. For that respiration paves way in name of Pranayama, which is the fourth stage in Astangayogam, and this meant to be a step ladder to attain Samathi, in which man coalesce with God. The aphorism connoting microcosm and macrocosm built by five elements is the universal's singular idea. This dictum applies not only for physiology, but for pathology as well. Thus it is necessary to understand the pathology of disease which is related to change in universe. The pathology of nasal disease could be precisely understood in relation to the water cycle. This understanding emphasizes the importance of scientific knowledge in traditional medicine.

Biography

S Yamini Priyadharsini has completed her Bachelor of Siddha Medicine and Surgery the Tamil Nadu Dr. M.G.R. Medical University, Chennai, India. She has presented 4 papers in national conferences and doing her post-graduation in the University mentioned above.

Notes:
Ellagic components from *Caesalpinia paraguariensis* (Burk.) inhibited the α-glucosidase activity

Sgariglia Melina Araceli, Somaini Gabriela C, Soberón Jose Rodolfo, Jimenez Cristina Marisol, Sampietro Diego Alejandro and Vattuone Marta Amelia
Universidad Nacional de Tucuman, Argentina

*Caesalpinia paraguariensis* is a native tree from Argentine, which has medicinal uses. People intakes the bark infusion to improve the diabetes and decrease the blood cholesterol level. One of the therapeutic approaches for the control of postprandial hyperglycemia is to retard glucose absorption by inhibiting carbohydrate-hydrolyzing enzymes such as α-glucosidase (AGH) in the digestive organs. In previous works it was showed the in vivo hypoglycemic activity, as well as the phytochemical characterization for this extract indicating the presence of ellagic derivatives. This study seeks to provide evidence about relationship between ellagic components from *C. paraguariensis* bark infusion (CPBI) and its hypoglycemic activity, aiming at the AGH target. For this, ellagic-rich fraction (ERF) was obtained from 100 mg lyophilized CPBI, applying solid/liquid-liquid conventional methods, using aqueous and organic phases (n-butanol). ERF components were characterized by analytical RP-HPLC. The AGH (E.C.3.2.1.20, Saccharomyces, SigmaCo.) enzyme inhibition assay was performed according to Matsu et al (1996). The enzyme inhibition was measured spectrophotometrically (400 nm) through monitoring of the p-nitrophenyl produced from hydrolysis of p-nitrophenyl-α-D-glucopyranoside (PNP-G) (0.7 mM) by AGH (16 mU), at 37°C, 30 min. Ellagic acid and 3-O-methylellagic acid were used as positive controls. ERF, 3-O-EA and EA reached 50% of AGH at ≤1.50 µg/ml concentrations (1.22 >> 0.09 > 0.07, respectively), and 90% at ≤4.00 µg/ml logarithmic trends were observed, and the kinetic assays suggested a competitive type inhibition; therefore AGH would be a likely target to explain the effect of CPBI in patients.

Biography

Sgariglia Melina Araceli is a Pharmacist and has completed her PhD in Biochemical from Tucuman University (UNT) as CONICET Fellow. During her Post-doctoral studies in UNT, she has developed in vivo assays based on the OECD protocols, looking for potentials phyto-therapics. At present, she is a member of Career Research Scientist from CONICET, and is conducting a research period in IFT-CNR (Italy). She has published more than 20 papers in reputed journals and book chapters for international editorials, and numerous publications at congresses.

Notes:
A study of hypolipidemic effect of Piceatannol on serum metabolomics of Hyper cholesterolemic rats by Gas chromatography/Mass spectroscopy and Ultra-performance liquid chromatography-Quadrupole time of flight/mass spectrometry

Tung-Ting Sham¹, Chi-On Chan¹,², Shun-Wan Chan¹,² and Daniel Kam-Wah Mok¹,²
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Piceatannol, a natural antioxidant and metabolite of resveratrol found in red wine and traditional herbal medicines, has been reported to have the prevention of development and progression of global prevalent cardiovascular diseases (CVDs). We primarily tried to investigate its underlying molecular protective mechanisms in supplement to high cholesterol diets (HCD) (one of the causes of CVDs) by combination of GC/MS and UPLC-QTOF/MS. HCD induced rats were either supplemented with piceatannol or simvastatin for 4 weeks. Serum lipid levels of randomized samples were measured by Keygen’s reagent. Serums were deproteinated for UPLC/MS analysis. Circulating free and esterified fatty acids were methylated and transesterified respectively prior to GC/MS analysis. The pooled quality control samples analyzed by UPLC/MS and standard fatty acid methyl esters by GC/MS were clustered together in the score plot of principle components, indicating high repeatability of the instrument. During the development of hypercholesterolemia, piceatannol supplementation significantly decreased the total cholesterol, LDL-C levels and the atherogenic index, similar to simvastatin (p<0.05) but only piceatannol lowered triglyceride level. Combined with multivariate statistics, GC/MS results indicated that piceatannol recovered the circulating esterified fatty acid profiles better than simvastatin. Also, over 20 biomarkers screened from UPLC/MS in positive and negative ionization mode showed that piceatannol interrupted the glycerophospholipid metabolism, and especially bile acid metabolism. Piceatannol might facilitate the cholesterol removal via bile acid biosynthesis. Such recovery of the abnormal metabolic state prevented the progression of atherosclerosis and lowered the risk of CVDs. Our study demonstrated the combination of GC/MS and LC/MS helps support the therapeutic effect of piceatannol to hyperlipidemia at the metabolomics levels.

Biography
Tung-Ting Sham is pursuing PhD in Department of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University. Her research interest is to examine the effect of Traditional Chinese Medicines (TCM) in hyperlipidemias with modern scientific technology so as to unveil the mechanism and promote global application of TCM.

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Notes:
Manipur, one of the easternmost frontier states of India, bordering Myanmar in the East and South-East, is within the “Indo-Burma centre of biodiversity hotspots” of global significance. Most of these hotspots are inhabited by people who are socio-economically poor, and include a large number of ethnic groups who hold a treasure trove of traditional knowledge on nutritional and medicinal value of natural bio-resources. 1200 species of medicinal plants are reported and the known local biodiversity includes 430 medicinal plants species. The dominant indigenous communities of Manipur include the Meetei, Naga, Kuki and other small communities like Manipuri Muslim. An eons ago, the indigenous local inhabitants have had a wide proficiency about the uses of traditional bio-resources, either food or medicine in their day-to-day life. The traditional healers, locally called “Maiba” for males and “Maibi” for females, play a crucial role in village health care. More than 90% of the village people are dependent on such traditional healthcare systems. In spite of that, the knowledge concerning ethno-medicine is vanishing along with “Maiba and Maibis” (old medicines men and women or local healers), due to the invading, so called modern culture which are alien to the community. Hence, the present review paper highlights more than 100 indigenous vegetables wealth and their uses as traditional folk medicine, a practice on the plight of peril in the region, by various ethnics group of Manipur since long before recorded history.

Notes:
Accepted Abstracts
Introduction to KOSA (Korean Orthodox Saahm Acupuncture)

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KOSA is an acronym of Korean Orthodox Saahm Acupuncture, which was invented by a Korean Ascetic Saahm 400 years ago and is the origin of five element acupuncture in the world. KOSA is the only acupuncture purely based on Yin, Yang and Five Element theory. KOSA was buried in the grave yard until early 1950s Master Rhee rediscovered his two books. Byoung Soon’s father, Master Kim learned it in 1962 and he clarified how to manipulate needles to foster or subdue an acupuncture point with 10 years’ practice, which made the best acupuncture in the world. Master Kim also treated various challenging diseases of cancers, stroke and etc. and taught 800+ students. One of his students, Dr. Woohyun Park (the Superintendent of the hospitals in Germany and Austria) learned KOSA in 2003 and taught his physicians KOSA. Their practices showed better than 90% of success rate over 80,000 patients in 2004.

KOSA has following characteristics:

- Easy and quick to teach or learn – simple yet clear terms
- Rigid logical diagnosis and treatment – no guess work
- Immediate powerful effects
- Multi-tasking – treats tens of symptoms at once
- Very high success rate on any conditions

KOSA’s mission is to provide KOSA treatment to the people in poverty all over the world for free.

A clinical study on management of Fibroadenosis of breast with Kanchanara Guggulu and Varuna Kwatha

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Fibroadenosis is the most common benign breast disease which is painful and estrogen dependent condition. In modern medicine conservative management is prescribed if fibroadenosis is not increasing in size, no nipple discharge specially blood or if there is no psychological effect. If epitheliosis suggested by FNAC, very painful or hard lump about which the patient is worried and anxious must do excision of the cyst or localized excision of the diseased tissues can be done by surgery. The goals of drug administration are to stop progression, to relieve pain, to reverse changes and to soften breast tissues. The drug of choice must be taken 4-6 months is costly. The 2nd drug of choice has side effects: acne, hirsutism, weight gain and amenorrhoea. Surgery will not be effective as fibroadenosis having recurrence associated with menstruation and due to side effects of drugs; practically none of the treatment is satisfactory. The disease arising due to excessive, uncommon or peculiar and improper growth of cells called Granthi. They develop due to tortuousness or abnormal vitiation of Dosha and Dushya. Granthi can be equated with all types of small in size glandular or nodular swelling developing mostly due to benign tumors and cysts. There is no direct reference for Stana Granthi in Ayurveda. But Mamsaja Granthi occurs in Stana (breast) is having close resemblance with fibroadenosis of breast. Kanchanara Guggulu and Varuna Kwatha have been taken for the study and they have Granthihara, Lekhana, Bhedi and Mutrala proreties. From three months clinical study, got significant effect on management of fibroadenosis of breast. For reduction of pain of mass, duration of pain of mass and tenderness of mass, for reduction of size of mass and pain relief relation to menstrual cycle had significant effect. These two trial drugs had reported minimum side effects.
The treatment of fertility and reproductive disorders by way of Hijamah-Wet cupping

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Aim: To provide a better understanding of the bio-mechanisms entailed in the treatment of patients who suffer physiological sexual and reproductive ailments by a process of elimination and appreciation of Hijmah Therapy in Holistic/Alternative medicine.

Method: There are many reasons and mechanisms for the physical failure of the reproductive functions in both men and women. Certain lifestyle choices as well as medical history can affect your reproductive system and fertility. Some of the common problems are; smoke tobacco or marijuana, have three or more alcoholic drinks per day, use illegal drugs, take anabolic steroids, take certain medications including testosterone, replacement therapy or drugs used to treat arthritis, high blood pressure, depression, cancer, infection, or a digestive disorder; have a chronic illness such as diabetes, cancer, or thyroid disease, have poor nutrition and are significantly overweight. The above are just a shortlist of the factors involved in both male and female infertility.

Results: It has been shown in the application of Hijamah or wet cupping in treating these ailments that it yielded significant results in patients who were subjected to this therapy.

Conclusion: Hijamah is the perfect alternative solution to the modern Allopathic system of medicine. Provided the patient is generally healthy and this therapy is administered in a hygienic environment, it is one of the safest practices with no known side effects.

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Philosophical thinking of Chinese traditional medicine

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Chinese Traditional Medicine (CTM) is the general appellation of all the traditional medicines of different nationalities in China, which share great similarities of basic concept and philosophical basis, and conform to the development regulation of empirical medicine, among which medicine of Han nationality (Han medicine) is the most mature. The development of CTM is totally different from modern western medicine, always revolving around the center of disease diagnosis and treatment, establishing the core theoretical system of "Yin and Yang", "five elements", "Viscera" and "Humoralism" with the theoretical foundation of ancient Chinese philosophy, which represents the highest achievement of worldwide empirical medicine and philosophy form at that time. In general, basic structure of CTM mainly consists of three parts as following: The part which shares consensus of modern medicine, the part which is unconsciously ahead of modern medicine, and the part which needs to be recognized or abandoned.

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Notes:
Clinical study for evaluation of Unani polyherbal formulations in Chronic sinusitis

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Chronic sinusitis is a debilitating disease affecting significant proportion of the population also called as Waram Tajawif al-Anf Muzmin in Unani system of medicine. All the paranasal sinuses are prone to inflammation and one or more sinuses may be involved in a patient at a time. The principle of treatment is to control inflammation and help the sinuses to drain. Treatment of chronic sinusitis is challenging and patients seek alternate treatment for effective control of their symptoms. In two separate open label studies, a total of 3675 clinically diagnosed patients of chronic sinusitis of different age groups, either sex, varying chronicity and single or multiple sinus involvements were treated with two combinations of polyherbal formulations – UNIM-051+ UNIM-053 in study-I and UNIM-052 + UNIM-053 in study-II. UNIM-51 and UNIM-52 are oral while UNIM-53 is for inhalation. From the analysis of data it has been observed that the highest percentage of the patients belong to phlegmatic temperament (75.3%) followed by sanguine (22.8%), choleric (1.6%) and melancholic (0.3%) temperament. Majority of the patients had the history of multiple medical treatments prior to their entry in these studies. The results of both the studies suggest promising clinical efficacy of the study drugs in all age groups and chronicity. Laboratory findings confirm that the study drugs have no side effect on haemoglobin level, erythrocyte counts, LFT and KFT. Findings of the study are in consonance with the claims of Unani physicians. Details have been discussed in the paper.

Wound healing effect of aqueous extracts of Quercus ilex

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In the Texmelucan Valley of Puebla, Mexico, the infusion of Quercus ilex bark is used as anti-bacterial, anti-halitosis, anti-haemorrhagic, anti-inflammatory, anti-perspiring, aniseptic, anti-tumour, antiviral, astringent, emetic, expectorant, haemostatic, immune stimulant, lithicite, worming and vulnerary, given their anti-haemorrhagic and immunostimulant properties. In this study we determined the effect of aqueous extracts of the bark of Quercus ilex on the recovery of wounds in Wistar rats. We applied aqueous extracts of bark every 24 h. We observed a 40% diminished healing time compared to the control left to heal naturally, and 20% compared to the commercial product from Dermatix® group. In subsequent work we will determine the response in wounds with different depths.

Notes:
Ayurveda for hair

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This paper focuses on the role played by Ayurveda in hair care and hair treatments. Ayurveda, the 20,000 year old medical science from India has made significant contribution to the hair management industry. This paper focuses on both the routine hair care and the hair related disorders. The reasons for various types of hair loss and other hair disorders, as explained by Ayurveda are an important part of this paper. Various important features of Ayurveda like Prakruti, Panchakarma, Thala Pothichil, Nasyam, Abhyangam, etc with respect to hair care have been explained. The role played by Ayurvedic external preparations and internal medicines in the treatment of various hair related disorders has been discussed elaborately. This discussion takes into account both the Shastrik preparations, referred by the ancient Ayurvedic scholars and the proprietary formulations recently developed. This paper also lists out around 20 important Ayurvedic herbs that play a major role in general hair care and hair treatments.

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Effect of nine essential oils from Cameroon and their combination against Infant diarrhoea induced by bacteria

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Diarrhoeal diseases are responsible for childhood death worldwide; in Cameroon, 36.9% of them are induced by bacteria. Taking into consideration the problems of bacterial resistance, it becomes imperative to look for efficient alternative antibacterial substances. Our work consisted of determining bacteria linked to infant diarrhoea and to evaluate the antibacterial activity nine essential oils of plants on targeted stains. A retrospective study of five weeks about infant diarrhea carried out in C.H.U., Yaounde enabled us to collect the responsible bacterial stain. Our essential oils samples used were obtained by steam distillation of 9 plants (Eucalyptus globulus; Cymbopogon citratus; Xylopia aethiopica; Thymus vulgaris; Ocimum canum; Cananga odorata; Citrus medica; Citrus paradise and Citrus reticulata) using the clevenger apparatus. Those that showed bioactivity were analyzed by GC and then GC/MS. Then, their bioactivity was tested by diffusion and microdilution method on some strains of bacteria origin for childhood diarrhea (E. coli, Salmonella, Staphylococcus aureus, Bacillus cereus, Shigella flexneri and Proteus vulgaris). Three active essential oils (Cymbopogon citratus, Eucalyptus globulus and Thymus vulgaris) were combined with Cymbopogon citratus as common base in proportions 2/1; 1/1; 1/2 and retested against the bacterial strains cited. The results obtained showed that 10, 8% of childhood diarrhoea was caused by bacteria E. coli (9.0%) and Salmonella spp (1.9%). The chemical analysis of the active essential oils showed that most of actives essential oils contain hydrocarbons monoterps and exogenous monoterpens instead of Eucalyptus and Cananga that showed exogenous monoterpenes and sesquiterpenes in their composition. The active essential oils were less active (MIC between 25 and 0.39 mg/mL) than combinations (MIC between 6.25 and 0.195 mg/mL). The most active essential oil was that of Cymbopogon citratus and that of Citrus medica was the least active, whereas the most active combinations were those of Thymus. The efficiency of Thymus combinations Th1 and Th2 (MIC between 1.562 and 0.195 mg/mL) on Salmonella, Staphylococcus aureus strains showed that they can be used respectively as potential drugs or conservatives in aromatherapy and food industry in order to limit bacterial contamination.

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Cellular rejuvenation function of Ginsenoside 20(S)-Rg3 and its ageing-proteome analysis

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Aging is a multifactorial process resulting from the accumulation of cellular damage over time, leading to physiological deterioration, increased mortality and eventual death. Ginseng is well known in herbal medicine as a tonic and restorative agent. The main molecular ingredients responsible for the actions of ginseng are the ginsenosides (also called ginseng saponins), which are amphiphilic molecules comprising a hydrophobic backbone of aglycone (a hydrophobic four-ring, steroid-like structure) linked to hydrophilic carbohydrate side chains. In previous studies for ginsenoside Rg3, its functions are known to be sodium channel inhibitor in brain disease, anti-angiogenesis effect in diabetic disease, and various anti-cancer activities. However, the effects of ginsenoside Rg3 on the aging/rejuvenation are not reported yet. The senescence associated-β-galactosidase (SA-β-gal) activity was dramatically decreased in 20(S)-Rg3-treated human dermal fibroblasts (HDFs) compared to non-treated old HDFs. Moreover, the ginsenoside 20(S)-Rg3 altered numerous aging factors involved in the maintenance of mitochondrial function. To identify the 20(S)-Rg3-induced rejuvenation in HDFs, we analyzed the label-free quantitative proteome in time-dependent proteomic profiles after the treatment of 20(S)-Rg3 to old HDFs. Nano-UPLC-high definition mass spectrometry (HDMSE) revealed the crosstalk with respect to cellular assembly and organization, free radical scavenging and small molecule biochemistry. Among the identified proteins, we concentrated largely in the expression patterns and associated networks of mitochondrial function. It is suggested that the ginsenoside 20(S)-Rg3 can defense aging-associated mitochondrial events and the ginsenoside 20(S)-Rg3 affects the rejuvenation potency by a disclosed molecular mechanism.

Integrative medicine in Latin America: Including complementary and traditional practices in formal health systems translational research as development strategy in traditional medicine

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Integrative medicine has begun to be an important means of new resources in the management of disease and especially in the presence of chronic severe and sometimes life-threatening health problems. Currently worldwide different health centers have started to develop programs for its study, research, and use. Currently, in the context of an increased life expectancy, that almost reaches 75 years of age, and growing health-care costs, it has been estimated that more than 400 million people in Latin America use nonconventional, traditional, natural, alternative and/or complementary practices, especially in primary care. Latin America is an important cultural region in the world. Indigenous peoples and cultures have influenced national and sub national cultures within regions, affecting language, music, religion, social customs, food habits, and civic institutions. It may be estimated that around 3 billion dollars are spent yearly on these products in Latin America, making it an economically highly interesting sector in health care. In the context of a relatively small but growing number of high-quality scientific studies, some of the clinical therapeutic models have started to be validated according to criteria of proven efficacy, safety, and cost-effectiveness, adherence to ethical and professional norms, and social acceptability according to guidelines of the World Health Organization (WHO).
Frankincense (*Boswellia* species): From the selection of traditional applications to the novel phototherapy for the prevention and treatment of serious diseases

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Frankincense (Ru Xiang; *Boswellia* Species), the resinous extract from the trees of the genus *Boswellia*, has been used for centuries in cultural ceremonies, as a cosmetic agent, and as a traditional medicine to treat a variety of ailments, especially inflammatory diseases including asthma, arthritis, cerebral edema, chronic pain syndrome, chronic bowel diseases, cancer, and some other illnesses. Boswellic acids are the active compounds of frankincense and AKBA (3-O-acetyl-11-keto-β-boswellic acid) is the most important and effective acid among them. Some studies have shown that the use of frankincense can also improve the learning and enhance the memory in animals and human beings. It seems that frankincense might have a potential ability to be used as an alternative natural medicine not only for chronic and inflammatory diseases but also for brain and memory disorders. Frankincense (Ru Xiang; *Boswellia* Species) is a French word, meaning “pure incense.” It is popularly known as Indian olibanum, salai guggal, loban or kundur. It has been used as incense, in fumigating preparations for religious rituals and cultural ceremonies, and as a traditional remedy for treating various diseases. The oleogum resins are secreted by trees of the *Boswellia* species which are tropical, deciduous trees and usually grow as small trees or shrubs with limited natural growing range. This has been extended by cultivation to meet the worldwide demand. The resin is obtained by making scrapes in the trunk of the various *Boswellia* species (Burseraceae), and collecting the dried resin gums from the trees later. Good quality resin is produced only for 3 years, after which the quality of the collected resin decreases significantly; therefore, the tree should be left to rest for some years after the harvesting period.

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Clinical efficacy of Unani formulations in bronchial – A multicentric clinical trial

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Unani medicine is clinically rich science with successful therapies for variety of ailments. Treatment of Bronchial Asthma has been well described in Unani medicine under the term Zeequn Nafas (Difficulty in Breathing). Breathing in fresh, healthy and appropriate quantity of air has been recognized as one among the six principles of healthy living and lungs unlike other systems is taken among vital organs of the body in Unani system of medicine. The principle of treatment of bronchial asthma in Unani medicine includes (1) dietary restrictions for reducing the formation of causative humour or Fadhlat. (2) rectification of external environment or avoiding ingestion (3) promoting Hararat and by administering Munzij and Musaffi drugs in order to expel the Fadhlat present in the body (4) purification of body by regimental, diet and drug therapies selectively or sequentially combined. Among all such measures, the Musaffiyat and Munzij and Mushil therapy are specific in the treatment of asthma because these diseases are considered to be of Balghami origin. In consonance with the aims and object of the Council and keeping in view the public requirement of Unani anti asthmatic drug, clinical trial on specific formulae UNIM-352 was undertaken at different centers of the Council with a view to establish comparatively better, cheaper, more effective drug for treatment of Bronchial asthma free from side effects. It was found that formulation is comparatively safe, cost effective, long lasting, multi-action, immunomodulator, bronchodilator, mucolytic, detoxificant, anti-histaminic, system toner, faculty elevator, nutritional supplement and palatable drug as compared to other market available Unani drugs. Most appealing point is that the ingredients are herbal, cultivated in India, prepared in India, no import is involved, best suitable for Indians and need not require any foreign technology, most suitable to Indians keeping in view the environment and temperament. Results are discussed in the paper in details.

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Propolis gel compared with Benzydamine hydrochloride in preventing Oral mucositis for patients irradiated in head and neck. A phase II study

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Background: Oral Mucositis refers to oral mucosa erythematous and ulcerative lesions and is caused by radiation dispensed in the treatment of malignant tumors of the head and neck. Propolis shows several biological activities such as antimicrobial, anti-inflammatory, anesthetic and cytostatic properties. These biological activities should prevent a mucositis.

Aim: Verify green propolis mucoadhesive gel effectiveness, in preventing oral mucositis in patients that underwent radiotherapy in head and neck.

Methods: This research is characterized as a phase II study with a mean duration of 12 weeks of patients follow-up. The selection of participants groups was randomized, conditioned especially to the availability of the patients during radiotherapy.

Results: Patients (n=26) were distributed between benzydamine (n=13) and propolis (n=13) groups and patients were assessed on an average of 4.5 times totaling 116 diagnoses of mucositis. The percentage of patients who had mucositis greater or equal to 2 in this study was 30.6% for the benzydamine group and 29.6% for propolis gel. Propolis gel shows a better performance in maintaining lower rates/grades and recovery of patients from the 17th session of radiotherapy.

Conclusion: Propolis gel shows a great possibility of further study in Phase III due to its good results and acceptance with patients.

Notes:
Spiritual life is a healthy life

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Seeing the material world and its deleterious effect on health, a balance in physical and mental health is a perfect and healthy life. I am teaching this aspect to my student & public as far as possible. Human body is made up of six elements, earth, water, fire, air, sky, and the 6th element is spirit. We scientifically call it life. Much has been talked about it, but less understood. The dharmas of this spirit are goodness, purity, austerity, simplicity, honesty, just like dharma of fire is hot. Maintenance of these qualities in life is called spiritual life and statistics show these spiritual people remain healthy & live longer. WHO data show that 43% death is not due to natural old age death. This figure will go up definitely. % of disease has also increased many folds. This we have acquired by material and sensual life style. Then, why not try with a spiritual life and get its benefits. There are less diabetes, controlled B.P., good sleep, good digestion etc., with less morbidity.

Soul: The soul is ultimately responsible for giving the body its life force. In subtle ways, it guides and directs our behavior and actions in the physical form. When the soul chooses to leave the physical body, the body perishes. The soul is driven by wisdom, love and universal service.

Mind: The next level is the mind, the interactive mechanism between the body and soul. The mind registers and filters emotion (the language of the soul) and registers nerve impulses generated by the body. The degree of communication between the body and mind, and soul and the mind depends on your ability to manipulate your mind to work for you. When the mind is functioning as intended, it is self-aware, focused and quiet as required. So the mind has two choices: to block out sensation or to listen to it. If the mind is smart, it listens.

Body: And finally, the body, our outer shell, is a product of both the mind and soul and how it is cared for on a daily basis. The body's magic formula for survival - sleep, diet, environment and exercise - can be used to prolong life or shorten it. You can learn and apply ways to sustain and energize your body - it's your choice. Body is governed by its nervous system which has sympathetic and Para sympathetic NS. Sympathetic are meant for fight & flight where as Para symph are for calmness thinking patiences, repair and healing, the endocrines and immune system operate through this system. These are mediated through neuro transmitters, like serotonin, melatonin etc. These neurotransmitters facilitates a healthy life styles like food, meditation, pranayam, early rising etc, but these can be made optimally effective only through a strict, regulated spiritual life only.

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Notes:
A new red propolis mucoadhesive gel: Antimicrobial activity against some oral pathogens

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In Brazil, red propolis was recently discovered and it originates from Dalbergia ecastophilum, a plant found in wet lands of the states of Paraiba and Alagoas in Brazil's northeast region. The Brazilian red propolis has been shown to be a powerful antimicrobial, however, is less studied against oral microorganisms. The aim of this study was to investigate the antimicrobial activity of a mucoadhesive gel of a Brazilian red propolis against microorganisms involved in the etiology of infections in the oral cavity. For this purpose, we used two gels with propolis concentrations of 5% (RPG 5%) and 10% (RPG 10%) compared with chitosan gel base 5% (CHG), propolis extract 5% (FRP 5%) and chlorhexidine 0.12% (CHX). The products were tested against S. mutans, S. salivarius, S. sanguinis, L. casei, A. actinomycetemcomitans, E. faecalis, F. nucleatum, and C. albicans ATCC all standards. The Minimum Inhibitory Concentration, Minimal Bactericidal Concentration and agar diffusion tests were performed according to CLSI standards. The results showed that all microorganisms were inhibited by propolis gel. The isolated extract of propolis was significantly more effective than all other products tested including chlorhexidine. However, differences were observed in responses between microorganisms such as F. nucleatum was more sensitive to RPG10% (16.6±2.02), while A. actinomycetemcomitans was more sensitive to RPG 5% (25.0±0.00). Even presenting antimicrobial properties, CHG did not affect the mechanism of action of propolis on the other hand; molecular synergism was not demonstrated in agar. In vivo and clinical trials studies should be performed to confirm these parameters.

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