Formulation, stability studies and analysis of new ayurvedic health supplement for babies

Deepa Padmaja
Devaki Amma Memorial college of Pharmacy, India

The six medicinal plants having antioxidant and antibacterial activity have been selected based on folklore use and it was incorporated in germinated cereals to form a new poly herbal formulation. The fabricated polyherbal formulation had undergone phytochemical screening. Qualitative chemical analysis method was performed. Evaluation of polyherbal formulation was conducted by means of pharmaceutical evaluation, safety evaluation and Physico chemical evaluation. In the case of safety evaluation, the acute toxicity studies were determined along with the determination of Aflatoxin and heavy metals. The acute toxicity of aqueous solution of formulation was determined in albino mice following fixed dose method of OECD guideline423; CPCSEA. For the determination of Aflatoxin, TLC method and for the heavy metals flame photometric method were performed. Physico chemical evaluation consists of total microbial count and detection of pathogens. In-Vitro antioxidant activity was also determined by DPPH method and in vivo studies were performed by inducing sodium nitrite oxidative stress in rats. Antibacterial activity was evaluated with the help of cup plate method (in-vitro) and in-vivo analysis by counting the number of bacteria (S.typhimurium) per gram of feces in mice. The major constituents like Gallic acid, Quercetin, Curcuminoids and Ascorbic acid were identified by comparing with bio-markers and it's quantified with the help of UV. After quantification, the filling process of the formulation was performed in accordance with GMP. The formulated product was standardized with the help of TRIPLE-P protocols. Stability studies were performed in accordance with ICH guidelines. All the results showed a very good positive response.

Biography
Dr. Deepa.P completed D.Pharm from John Enoch College of Pharmacy, B.Pharm from S.B. College of Pharmacy, and M.Pharm from Annamalai University Chidambaram. Completed PhD at the age of 33 years from Karpagam University, Coimbatore and she guided nearly 100 B.Pharm students and 7 P.G.students. She has published more than 15 papers in reputed journals and has been serving as assistant professor in Devaki Amma Memorial College of Pharmacy. Got best research idea award from a community called "synergians", Kochi.

deepa_kuttie@yahoo.com
Minimum inhibitory and bactericidal concentrations (MIC & MBC) of honey and bee propolis against multidrug resistant (MDR) Staphylococcus sp. isolated from bovine clinical mastitis

Abdul Hafeez M M
Assiut University, Egypt

With the emergence of antibiotic-resistant Staph. sp., searching for antimicrobial agents other than antibiotic is of great concern. The study aimed to determine both MIC & MBC of different honey samples against these strains since it was conducted with 64 Staph sp. recovered from bovine mastitis which were tested in vitro against 11 antimicrobial agents. The most multidrug resistant (MDR) strains (n. 19) representing the four species; S. aureus (n. 6), S. intermedius (n. 3); S. epidermidis (n. 5) and S. saprophyticus (n. 5) were tested against six honey batches; marjoram, cotton, two different fennel samples and two different trefoil samples as well as they were tested against 10% w/v propolis-fennel honey mixture. Both MIC & MBC of the six honey samples and propolis-honey mixture against every tested strain were determined. The study concluded that all tested bacterial strains, despite of being MDR- were sensitive to the antimicrobial activity of all tested honeys but differently. Against all Staph sp., trefoil honey batch-2 had the lowest MIC value (20.83% v/v) but cotton had the lowest MBC one (37.92% v/v) among the six tested honey batches without any significant differences, while 10% w/v propolis-fennel honey mixture showed the lowest both MIC & MBC values against all Staph sp. As a whole, the study had (13.96 & 28.26% v/v respectively) high significant differences (p>0.01). Against different Staph sp., it was found that propolis honey mixture had the lowest MIC value against S. intermedius followed by S. aureus as 6.2 & 7.25% v/v respectively with high significant differences (p>0.01), and MBC values as 12.5 & 14.58% respectively. Among the different Staph. sp., S. aureus was the most sensitive species to the honey antimicrobial action since MIC & MBC as 13.3 & 27.1% v/v respectively with highly significant differences (P>0.01).

moh_hafeez55@yahoo.com
Case report for alternative medicine use in pregnancy

Achafac Annette Atemkeng
Cameroon Bioethics Initiative, Cameroon

The purpose of the study was to investigate the reasons why pregnant women use alternative medicines in pregnancy. It was a cross-sectional study that involved some participants drawn from nurses in Kumba. One hundred questionnaires were administered excluding the fifty-five nurses that were in the study. As a facilitator for easy delivery 27.4% was given as a factor and again, participants gave the reason that it is cheap, accessible and as a culture measured 21.9% was all given as reasons why pregnant women use alternative medicine in pregnancy. Irrespective of the disadvantages of herbal medicine, participants during the Alma-Ata primary health care delivery declaration of 1978, called for health for “all by the year 2000”, World Health Organization (WHO) acknowledges the importance of herbal medicine. There has recently been an upsurge of interest in the role of traditional medicines on the part of the World Health Organization and health services authorities of many developing countries. This interest arises from the fact that alternative medicines not only have important cultural roles but may have beneficial medicinal effects and be more cost-effective than modern pharmaceutical agents. In this study the ingestion of herbal medicines during pregnancy is reported to be high; herbal ingestion rates of 68% were documented. From the findings, pregnant women as well as their husbands should be aware of the risk factors and complications of herbal products when ingested in pregnancy. Men should educate their wives on the adverse effects of herbal products, nurses should always carry out a thorough assessment of pregnant women during ANC in order to illicit or diagnose the use of herbal medicines and directions of public and private hospitals; should set up refresher courses about the ill effects of the use of herbal medications by pregnant women so that they can be more apt to manage this condition physically, psychologically and spiritually.

Biography

Achafac Annette Atemkeng has completed her Higher National Diploma in Nursing HND at the age of 30 years from the Higher Institute of Applied Medical Sciences and Bachelor of Technology in Nursing at the Higher Institute of Applied Medical Sciences affiliated to the University of Buea. She is currently working as an intern at the Cameroon Bioethics Initiative, Younde Cameroon. She has written two research papers during her stay and studies at the institution of which one is the use of alternative medicine in pregnancy carried out in one of our health district of Cameroon specifically in a town call Kumba at the South West Region.

annettemartins@yahoo.com
Preliminary studies on potency of *Aloe vera* and shea butter mixture in west African dwarf (WAD) goats naturally infected with sarcoptic mange

Ameen Saliu Akanni  
University of Ilorin, Nigeria

The preliminary studies on the potency of *Aloe vera* and Shea butter was conducted on fifteen WAD goats naturally infected with sarcoptic mange. The mixture *Aloe vera* and Shea butter was in ratio 1:1. This mixture was applied twice per week for a period of six weeks before complete recovery from mange was noticed. The mixture was found to be effective. All infected goats which were seriously affected showed complete recovery and (100%) healing to the mixture although it had no significant effect (P>0.05) on the haematological and biochemical parameters measured in the Sarcoptic scabei infected goats before and after treatment.

Biography

Saliu Akanni Ameen had his DVM; MVSc and PhD respectively in 1997, 2003 and 2012 from Faculty of Veterinary Medicine, University of Ibadan, Nigeria. He became a Fellow of College of Veterinary Surgeon (FCVSN) in 2013 with Specialization in Large Animal Medicine. He is currently a Senior Lecturer at Faculty of Veterinary Medicine, University of Ilorin, Nigeria. He has published more than 25 papers in reputed journals including participation in publication of four books in Animal Production and Health and has been serving as a reviewer to many reputed journals within and outside Nigeria.

Ameen Saliu Akanni, Altern Integ Med 2014, 3:3
http://dx.doi.org/10.4172/2327-5162.S1.009
Antihyperlipidemic activity of methanolic extract of Garcinia indica fruit rinds in poloxamer-407 induced hyperlipidemic mice

Ankita N Patel
Apogee Healthcare Pvt. Ltd., India

Hyperlipidaemia is a clinical and metabolic disorder characterized by abnormal elevation in the major circulatory lipid and lipoprotein levels accounting for approximately 56% cases of cardiovascular diseases worldwide and causes about 4.4 million deaths annually. There are variety of plant are available in traditional medicines, which are ethnomedically claimed to be antihyperlipidaemic but still scientifically not proven. With this aim the selected plant i.e. Garcinia indica has added interest because it joins two basic cardiovascular disease (CVD) control factors: food and medication. The usefulness of such type of untapped foodie plant could be developed for patients having CVD in order to improve their lifestyle and control their disease. With this kind of menu, patients having CVD could potentially avoid the use of the synthetic antihyperlipidaemic or cardioprotective agents. Hence the methanolic extracts of fruit rinds of Garcinia indica were evaluated for antihyperlipidemic activity in Poloxamer-407 induced hyperlipidemic mice. The administration of the methanolic extract of fruit rinds (400 mg/kg p.o.) in Poloxamer-407 induced hyperlipidemic Mice create a significant (p<0.05) reduction in elevated serum total cholesterol (TC), triglycerides (TG), and low density lipoprotein (LDL) levels and significant maintenance of high density lipoprotein (HDL) level, the study also confirm by histopathological observations.

Biography
Ankita N Patel has completed her Graduation and Post Graduation from Pune University. Currently she is working as an R & D Executive at Apogee Healthcare Pvt. Ltd., Mumbai. Till date she has published 6 research papers in reputed international journals and attended many seminar and conferences. Her area of interest includes standardization of Traditional medicinal formulations and Cosmetics, Isolation and characterization of phytochemicals, Pharmacogonostical and Pharmacological screening of herbs.

anvi.nature@yahoo.in
Overview on Ethiopian traditional medicine: Status and perspectives

Asfaw Debella
Ethiopian Public Health Institute, Ethiopia

Traditional Medicine is a widely growing health system and of economic importance. Population throughout Africa, Asia and Latin America use traditional medicine to help meet their primary health care (PHC) needs. This paper therefore gives a general overview on the indigenous or traditional medical system of Ethiopia. Ethiopians heavily relied for centuries on a system of traditional or indigenous health care knowledge for various physical and mental disorders. It is widely perceived and embedded in beliefs, and practices primarily through the use of plant-based remedies besides animal products and minerals.

About 80% of the population relies on the traditional system of medicine in the provision of health care. The indigenous knowledge and traditions of Ethiopia utilize the herbal resources available in nature. Ethiopia has a significant portion of two of the world's 25 biodiversity rich areas hot spot i.e. the eastern Afromontane: Biodiversity Hotspot and the Horn of Africa-Biodiversity Hot Spot. These hotspots house a lot of the useful wild biodiversity, particularly that of medicinal plants. The indigenous knowledge is transferred from generation to generation orally. It is more diverse based on the ecosystem and the household level health practices. The health practices that start from home remedies for primary health care to specialized healing traditions like bone setting, poison healers, delivery, and veterinary healers are found among various.

The Ethiopian traditional medical system is practiced by traditional healers which are categorized as herbalists, bone settlers, traditional birth attendants and spiritual healers. Herbalists are considered to be the biggest group that uses medicinal plants. They use in one way or the other plants and plant products in their medical practices.

Ethiopia has policies, legal framework and strategies that support the development and utilization of plant resources in a sustainable manner besides the recognition of traditional medicine. The recognition of the actual and potential significance of traditional medicine in Ethiopia was not limited to issuance of appropriate policy frame works. Organizational measure with respect to the development of traditional medicine on a scientific basis has also been taken; this is expressed by organizing a research institute, namely the Ethiopian Public Health Institute (EPHI) that facilitates a multidisciplinary research in traditional medicine. Information on medicinal plants species and their folklore use in the traditional health care system are documented in an electronic data file without which no appropriate research agenda can be formulated. Multi-disciplinary research work has been and being undertaken with major emphasis on the evaluation of the safety, efficacy, constituents and quality of traditionally claimed medicinal plants on diseases of public health importance.

Encouraging results have been obtained on the efficacy and safety of some of the medicinal plants for priority health problems from these studies. Many research papers and publications have been resulted from these undertakings. The regulatory aspect of traditional medicine is mandated to Food, Medicine and Health Care Administration and Control Authority (FMHACA) which set standards of safety, efficacy and quality of traditional medicine and issue license in order to use traditional medicine in the health service. The protection of intellectual property right (IPR) and conservation and sustainable utilization of medicinal plants are dwelt by other Ministries. Conservation and sustainable utilization of medicinal plants is undertaken by the establishment of the Institute of Biodiversity within Ministry of Agriculture that ensures the country and its communities to obtain fair and equitable share from the benefits arising out of the use of genetic resources and community knowledge and community right.

All the above efforts showed the recognition and potential significance of traditional medicine to meet the primary health care. This could strengthen and enhance the development of Ethiopian traditional medicine to effectively make use of the beneficial aspects which could facilitate its integration with the existing conventional health care system and achieve the goal health for all.

asfawdebella@gmail.com
Traditional medicine: Need of the day

Avinash Shankar  
National Institute of Health & Research, India

Considering non nutritional constituent in food and drinks, self medication and increasing drug resistance and drug adversity not only declined self defense but also promoting disease chronicity and ultimately affecting the therapeutic outcome in spite of advances in diagnosis and Medicare system. Exploration of various modern therapeutics from traditional herbs having documented clinical effects suggest traditional therapeutics significance as a source of modern molecules thus need proper exploration in terms of clinic to lab rather than lab to clinic which is also known as reverse pharmacology. Hence after 20 years agonizing encumbrance for not providing full proof therapy for many diseases like- Filarial lymph edema, arthritis, epilepsy, asthma, liver disease, lithiasis, diabetic neuropathy, migraine, trigeminal neuralgia, epilepsy, paralysis, down syndrome and cerebral palsy, malignancies, psoriasis, leucoderma, post bells palsy deformity etc., peeped through various Medicare system of healing with an intent to find out a curative solution either alone or in combination of various therapeutic systems Herbo mineral therapeutics in XDRT, epilepsy, paralysis, neuralgia, neuropathy, diabetes mellitus, lithiasis and leucoderma, acupuncture in bells palsy, migraine, sciatica, trigeminal neuralgia, arthritis as an adjuvant with modern medicine not only promoted early onset of clinical response but also helped in bio regulation of body bio kinetics as patients in post therapy follow up of about 12 years reveals no recurrence of the presentation, hence the holistic approach is a need of the day to ensure better therapeutic response.

Biography

Avinash Shankar, founder of the Organization, is a dedicated medical professional having firm determination for rural health care and global diversification of the Indian heritage Ayurveda with scientific documentation. He graduated from Mahatma Gandhi Institute of Medical Sciences, Sewagram, a premier medical institute of India rendering medical education oriented for rural health care with sincerity visiting professorships in USA, UK and Australia. He published and presented more than 200 original paper in national and international medical journals including current therapeutic research, USA, IJM today. He presented paper at national and international medical conference and is also associated with various medical journals as an editorial member or editor. He authored books-Hand book of poisoning, an unique composite of its kind and reviewed globally, Synopsis of treatment, quotes an holistic approach of healing for various disease, Longevity, a comprehensive composite to remain healthy, Pharmacological basis of indigenous therapeutics ( in press 6 volumes). He is presently heading organization like- Leucoderma foundation of India, India Epilepsy Forum, Society for Endocrinal and Metabolic disease, Punarjeevan Bihar - organization working for creating awareness and research in breast cancer through their initiative PINK CHAIN.

dravinashshankar@gmail.com
To study the efficacy of Krishnadi Choorna in of Tamak Shwas w.r. to bronchial asthma

Bhairav Tawshikar
C.S.M.S.S. Ayurved College, India

In the current study, 60 patients of Tamak Shwas have been selected randomly divided in two groups. The patients showing classical symptoms of Tamak Shwas such as Shwaskruchhrata (Dyspnoea), Kasa (Cough), Ghur-Ghurak Shabda (Wheezing or Rhonchi) during night, Kasten Shleshma Moksha (Difficult in Expectoration), Kasten Bhashya (Difficult in Expectoration), Anidra (Insomnia) etc. were included in this study. For the present study they were given Krishnadi Choorna orally. It reduces respiratory rate effectively & increases expansion of chest, breath holding time, and peak expiratory flow rate & sustained maximal inspiration which was highly significant statistically as compared with tablet deriphyllin. Out of 30 patients included in Group A, no patients showed total relief in symptoms, 7 patients were markedly improved (50 to 75%), 21 patients were improved (25 to 50%), 2 patients were unchanged (less than 25%). Out of 30 patients included in Group B none patient showed total relief in symptom, 3 patients markedly improved (50 to 75%), 26 patients improved (25 to 50%), 1 patient was unchanged (less than 25%). At the end of the study it was found that Krishnadi Choorna in Group A is more effective than in Group B.

dr.bhairav@rediffmail.com
Micrpropagation of Indian rice varieties by using de-husked seeds

B Singh, S S S Reddy and A N Pathak
Amity University, India

Rice is staple crop in major parts of India, but it is facing some major problems like abiotic stresses (drought, salinity etc) and its productivity is greatly affected by these abiotic stresses. Attempts to improve resistance in Indica rice to these stresses by conventional breeding through introgression of traits have limited success owing to a lack of resistance germplasm in the wild varieties. Gene transfer technology with genes from other sources can be used to make rice plants resistant or tolerant to abiotic and different environmental stresses. For improving the nutritional value of the edible endosperm part of the rice, iron increasing genes, beta-carotene, or protein of better quality can be introduced in rice plants by bacterial-mediated gene transfer. In this direction, twenty one varieties of Indica rice grown on basal MS medium, supplemented with different concentrations of growth hormones, sucrose (3%) and mannitol (1%) lead to development of callus, roots and multiple shoot proliferation. Callus induction was obtained on full MS and ½ MS medium containing 2, 4-D (2 - 2.5 mg l- 1) and 2, 4-D + Kin (2.5-3 mg l- 1) sucrose (3%) and mannitol (1%) in ten varieties (Sarsu 52, PR-116, Erramallellu, Pothana, Vijetha, Surekha, Kavya, Sambha Mahusuri, Ramappa and Kheshava) within 4-5 weeks. Multiple shoots were achieved in two varieties (PR-116, PR-115) of Indica rice cultured onto the MS medium within 24-28 days. For multiple shooting of these two varieties, the medium was supplemented with 2, 4-D (5.0 mg l-1) Kin (3.0 mg l-1), sucrose (3%) and mannitol (1%). Complete plantlets were successfully transferred to soil after acclimatization.

Biography

B Singh has completed his PhD at the age of 30 years from University of Rajasthan, Jaipur, India and postdoctoral studies from University of Rajasthan, Jaipur, India with Professor Ashwani Kumar. He is working as Assistant Professor at Institute of Biotechnology, Amity University Rajasthan, Jaipur, India. He has published more than 25 papers in reputed national and Overseas Journals. Five text books have been published in his credit and he has been serving as an editorial board member of repute of many journals.

bharatsingh217@gmail.com
Chemical phases of iron in large number of the Ayurvedic bhasma are investigated through Mossbauer Spectroscopy. Iron is found in oxide form as Fe2O3 or Fe3O4 or both in all the bhasma studied here irrespective of their nature their mode of preparation. The size distribution of iron particles is different for different bhasma. It is known that iron oxide is toxic to human body and it is also not easily absorbed in it. Mossbauer studies point to iron oxide being present in these bhasma and thus not safe for human consumption. However we suggest that clinical evaluation of these drugs by experts is urgently needed to find out if these drugs are safe or not?

Biography
Bhavna Joshi has completed her PhD at the age of 25 years from Jai Narain Vyas University, Jodhpur, and Rajasthan, India. She did her PhD (Physics) in Mossbauer Spectroscopy on Traditional Medicines. She has published research papers in reputed journals. She used phase sensitive technique as major research tool for the first time. Now she is pursuing post doctorate in physics, Jai Narain Vyas University, Jodhpur, India.

bhavnajoshi181@gmail.com
An experimental evaluation of CNS depressant activity of root of *Flemingia strobilifera* (L.)W.T.Aiton

Bidhan Mahajon1, Remadevi R2 and B Ravishankar1
1V.P.S.V Ayurveda College, India
2S.D.M. Centre for Research in Ayurveda and Allied Sciences, India

**Background:** In Ayurveda, there is no plant which has no medicinal value & which cannot be utilized as medicine. Today many of such “golden treasures” lie in the dense green, yet to be discovered or practiced only by folklore practitioners which remains as a knowledge of only a few group. Flemingia strobilifera is such a medicinal plant, indigenously used in epilepsy, hysteria, insomnia and to relieve pain. It is also reported that small portion of the root is useful in order to induce heavy sleep, even under great pain but there is lack of scientific validation regarding the use of this plant.

**Aim and objective:** To evaluate experimentally CNS depressant activity of Flemingia strobilifera in animal model.

**Materials and methods:** Root extract was evaluated for CNS depressant activity by OFB, SMA, and BDT experimental model.

**Statistical analysis:** One way ANOVA with Dunnet's multiple 't' test.

**Results and conclusion:** Root extract shows significant effects in CNS depressant activity.

bidhanmahajon@gmail.com

bidhanmahajon@gmail.com
Nutraceuticals for geriatrics

Charu Gupta
Amity University, India

Geriatrics is a medical practice that addresses the complex needs of older patients and emphasizes maintaining functional independence even in the presence of chronic disease. Treatment of geriatric patients requires a different strategy and is very complex. Geriatric medicines aim to promote health by preventing and treating diseases and disabilities in older adults. Development of effective dietary interventions for promoting healthy aging is an active but challenging area of research because aging is associated with an increased risk of chronic disease, disability and death. Ageing populations are a global phenomenon. The most widespread conditions affecting older people are hypertension, congestive heart failure, dementia, osteoporosis, breathing problems, cataract, diabetes to name a few. Besides, decreased immunity is also partially responsible for the increased morbidity and mortality resulting from the infectious agents in the elderly. Nutritional status is one of the chief variables that explains differences in both the incidence and pathology of infection. Elderly people are at increased risk for micronutrient deficiencies due to a variety of factors including social, physical, economic, and emotional obstacles to eating. Thus there is an urgent need to shift priorities to increase our attention on ways to prevent chronic illnesses associated with aging. Individually, people must put increased efforts into establishing healthy lifestyle practices, including consuming a more healthful diet. The present review thus focuses on the phytochemicals of nutraceutical importance for the geriatrics.

Biography

Charu Gupta (Gold Medal; ICAR-NET, GATE qualified), Assistant Professor, Amity Institute of Herbal Research & Studies, Amity University with over 8 years of experience in teaching and research at University level. She has published around 30 research and review papers in SCI journals, authored 4 books and 70 abstracts in both national and international conferences. During her tenure at Amity, she has filed several patents related to the medicinal plants and microbiology. Her research interests are in probiotics & utilization of agro-industrial wastes for production of value added products.

charumicro@gmail.com
Lithuanian folk traditions

Daiva Seskauskaitė
Forestry and Environmental Engineering University of Applied Sciences, Lithuania

In this Paper we discuss the importance of Lithuanian Folk Medicine, about the use of plants for the people of the Baltic region, about diagnosing illnesses, about use plants, magical words, material, animals some of part for illnesses. The important question about role of nature, role of animal in the folk medicine. They needed to treat diseases of the due time designated. Information about illnesses, treatment and healing is given about before now and currently time. In Lithuanian folk traditions, healing was the duty and right of family elders or the youngest. All healing information was handed down orally from generation to generation.

Biography
Daiva Seskauskaitė has completed her PhD in Ethnology from the Vytautas Magnus University Kaunas and postdoctoral studies from Stanford University School of Medicine. She is the Lector and Scholar of Kaunas Forestry and Environmental Engineering University of Applied Sciences (KFEEUAS). She has published more than 35 papers in reputed journals and has been serving as an editorial board member of repute.

daiva@sargeliai.org
Effect of sucrose concentration and fermentation time on the quality velva probiotic banana (*Musa paradisiaca* Linn.var *Sapientum kuntze*)

Elok Zubaidah  
Brawijaya University, Indonesia

Velva is frozen processed fruit products textured similar with ice cream which made from a fruit puree mixed with sucrose. Velva Probiotic Banana is velva fruit base on banana and probiotic. The important factor in velva production is addition of sucrose concentration and fermentation time. The role of sucrose to decrease ice crystal form and fermentation to increase viability of probiotic. The aim of this research is to determine the influence of sucrose concentration on quality of velva probiotic banana. This research used Random Block Design with 2 factors, sucrose concentration (30%, 40%) and fermentation time (4, 6, and 8 hours) with 3 replication. The data were analyzed with ANOVA followed by Least Significant Difference Test Method 5%. The best treatment chosen by De Garmo Index Effectivity Method. The result of research showed that the best result of the combination was the addition of 40% sucrose concentration with fermentation time of 4 hours with the characteristic were: the LAB total 2.67x10^8 cfu/ml, total of acid 0.204%, pH 4.71, vitamin C 1.408 %, total dissolved solids 15.1 Brix, overrun 24.787%, and melting time 3 minutes/g.

elzoeba@yahoo.com
Evaluation of wound healing activity of rhizomes of *Rumex abyssinicus* J. in mice

Eshetu Mulisa
Jimma University, Ethiopia

*Rumex abyssinicus* Jacq (Polygonaceae) is widely distributed in the highlands from North Africa to Ethiopia. Traditional healers in Ethiopia use the rhizomes of *R. abyssinicus* ("Mekmeko" in Amharic) combined with other plants to treat wounds and various ailments. Despite some research on the plant, there is no scientific report proving the use of *R. abyssinicus* on wound healing. Thus, the present study have an objective of investigating the wound healing potential of 80% methanolic extract of *R. abyssinicus* rhizomes in mice.

Having been extracted with 80% methanol, the hydroalcoholic extracts were incorporated in simple ointment base B.P. in concentration of 5% (w/w) and 10% (w/w) for wound healing activity study topically in mice using excision and incision wound model. In vivo antiinflammatory activity was studied by dissolving the extract in 1% carboxyl methyl cellulose and giving orally at dose of 250, 500 and 750 mg/kg in carrageenan induced hind paw oedema model.

Wound treated with ointment containing 5% and 10% (w/w) hydroalcoholic extract in the two experimental model exhibited significant wound healing activity (p<0.05-0.001) compared to control as evidenced by increased wound contraction rate, shorter epithelization time, higher skin breaking strength and increased hydroxyproline content. 10% (w/w) hydroalcoholic extract ointment effect was comparable to that of the reference standard (nitrofurazone). *R. abyssinicus* rhizomes hydroalcoholic extract also produced dose-related significant reductions (p<0.05-0.001) of inflammation as compared to control.

The results of this study demonstrated that the hydroalcoholic extract of the rhizomes of *R. abyssinicus* facilitated wound healing at least in part via its antiinflammatory activity, supporting its traditional claim as wound healing agent.

**Biography**

Eshetu Mulisa has completed his B Pharm at the age of 23 years in 2009 from University of Gonder and MSc in Pharmacology at the age of 25 years in 2011 from Addis Abeba University. He is the coordinator of Pharmacology and Toxicology course team at Jimma University.

mulisa2e@yahoo.com
Anti aging effect of Ferula assa-foetida on human dermal fibroblasts in-vitro

Farshad Homayouni Moghadam
Shahid Sadoughi University of Medical Sciences, Iran

Introduction: Based on data from traditional uses of Ferula assa-foetida (asafoetida), several therapeutic applications were considered for this plant. Cytotoxic, anti ulcer, anti neoplasmy, anti cancer, anti oxidative and lipoxygenase inhibiting effects were attributed to the extract of asafoetida. Because of these multiple actions its effects on organs of human body would be obscure. In present study we evaluated its effect on human skin fibroblasts.

Materials and Methods: Human dermal fibroblasts and mouse embryonic fibroblasts were used to evaluate effect of asafoetida resin gum aqueous extract on them. Senescence was induced on human dermal fibroblasts using hydrogen peroxide, senescence was established by increased B-galactosidase activity among cells. By application of different concentrations of asafoetida on cells, anti aging effect of asafoetida was evaluated. The survival rate of fibroblasts was evaluated by cell counting and methyl tetrazolium bromide (MTT) test.

Results: Present study showed that in low concentrations asafoetida has rejuvenating effect on senescent fibroblasts and significantly decreased the B-galactosidase activity in senescent cells (P<0.05). It also significantly increased the proliferation rate of human and mouse fibroblasts (P<0.05).

Conclusion: Findings of this study revealed that in low doses asafoetida has anti senescence effect and could reverse the aging process; it also increases the rate of proliferation of fibroblasts. Therefore asafoetida could be effective on prevention of occurrence of aging on skin, and it could be beneficial for healing the damaged skin.

f_homayounim@yahoo.com
Farshad Nazaraghaei
Persian Yoga Academy, Iran

Farshad's Geometric Meditation is an innovative and effective method which abbreviated as F.G. Meditation and was created by Farshad Nazaraghaei. It is divided into two more specific parts: Geometric Somatic-Breathing Based Meditation (G.S.B.B. Meditation) and Geometric Introspective Based Meditation (G.I.B. Meditation). The general meaning of meditation in F.G. Meditation is purposeful and self-induced manipulation of attention which leads to the experience of an altered state of consciousness and concentration. Attention, here, means brain capability and tendency to deal with a single subject or a phenomenon and to ignore all other subjects and phenomena at the same time. In G.S.B.B Meditation, we focus our attention on subtle vibrations and effects produced by the breathing process in each specific part of the body, and dismiss all other vibrations and effects from our attention. These vibrations should be organized on various linear, surface and solid directions in the form of some geometric shapes superposing to different parts of the body with the aim of manipulating, massaging, and modulating attention in order to reach the concentrative state and mental silence as well as to experience altered states of consciousness.

Biography

Farshad Nazaraghaei has done his MSc in Holistic Health and Yogic Sciences, DSVV, India; received his PhD in Human Consciousness and Yogic Sciences, Mangalore University, India. Currently Head of Persian Meditation Academy, Iran and Head of Persian Yoga Academy, Iran.

farshad.yoga1@gmail.com
Medicinal plants typically contain mixtures of different chemical compounds that may act individually, additively or in synergy to improve health. There is also growing evidence to show that old molecules are finding new applications through a better understanding of traditional knowledge and clinical observations. Uses of these species, for the treatment of various medicinal problems along with the other uses by the local inhabitants were passed down from generation to generation by rapid cultural transformation is causing old traditions to become extinct. In the present work an ethno botanical survey was undertaken in the Kalahandi District, Odisha, India and collected information at bio-chemical levels was focused on identifying medicinal plants, disease treated, part of the plant used, methods of preparation, route of administration, ingredients added etc. Data were collected through field assessments from traditional healers and locals by means of personal interviews and semi-structured questionnaires using purposive sampling method. Drawing on ethnobotanical and ecological information obtained through traditional techniques of ethno botanical surveys, we discussed on 86 medicinal plant species belonging to 41 families were collected, verified and authenticated. The most relevant plants are mentioned in this paper, along with their local names, the parts of them used, popular uses (or troubles treated), preparation and administration processes, and citation frequency. So there is an immediate need to adopt a proper conservation strategy for protection of these medicinal plant resources for future generation.

gayatri.science@gmail.com
Medicinal mucilages used in Iranian traditional medicine

Ghazaleh Heydarirad, Rasool Choopani and Jamileh Mahdavi
Shahid Beheshti University of Medical Sciences, Iran

Purpose: Mucilages are pharmaceutically important polysaccharides that have an extensive range of applications, including as binding agents, thickeners, water retention agents, emulsion stabilizers, suspending agents, disintegrates, film formers, and gelling agents. The therapeutic value of mucilages extends to diabetes, immunity stimulation, wound healing, and cancers. A historical approach on medical science written by Iranian scholars could help in the detection of some viewpoints that cannot be paid attention to or signified by a purely medical one and provide valuable information in the field of medicinal plants application.

Methods: In this literature search assembled some main traditional manuscripts of Iranian medicine, including the book of Al-Havi, Canon of Medicine, Qarabidine-kabir, Zakhireh-i Kharazmshahi, Tohfat ol Moemenin and Makhzan ol advieh. The word “loab” in the books mentioned above, were searched and all data about mucilages were collected.

Results: In Iran, the use of medicinal plants contains mucilage date back to ancient times. In traditional Iranian manuscripts, mucilage is one of the most cited applications of medicinal plants for therapeutic objectives and has been traditionally used via oral or topical routes for respiratory, gastrointestinal, urinary, musculoskeletal, and genital systems as well as skin disorders.

Conclusions: A scientific assessment of these historical manuscripts can give us an insight into the thoughts of the past and be valuable in finding new information on clinical use of the mucilages that should lead to future opportunities to research their potential medicinal use.
Tantric meditation and mantra for healing: Guidelines from the Indo-Tibetan tradition

Glenn H Mullin
Tibet

Aim: Meditation, mantra and chakra work for outer, inner and secret healing: Practical guidelines from the Indo-Tibetan buddhist tantric tradition.

The lineage of healing through spiritual application and yoga is very much alive and well in the Indo-Tibetan tradition. One of the most powerful lineages of this nature descends from the 11th century Indian female mystic Siddharani. It was popularized by the great Milarepa, and has been part of the staple spiritual diet of the Dalai and Panchen Lamas.

Biography
Glenn Mullin is the author of thirty books on the culture of Central Asia. He has also participated in the making of a half dozen movies and television specials on Central Asian Buddhism, and co-produced three recordings of Himalayan spiritual music. Glenn originally studied engineering at Mt. Allison University, Canada, but after university travelled to the Himalayas in North India, where he studied Himalayan Buddhist philosophy, meditation, yoga, art and medicine for fifteen years.

glennhmullin@gmail.com
Traditional knowledge and medicinal therapy in rural landscape of India: Ethnobotany, livelihood and sustainable conservation

Gopal S Singh
Banaras Hindu University, India

Studies related to ethnobotany and sustainable use of herbal drugs have received world attention as developed counties are turning back towards the use of plant-based medicines due to side effects of certain allopathic drugs. People of the developing countries have been living vicinity to natural resources since generations, they relied on herbal drugs as their primary health care system. Currently, traditional knowledge pertaining to medicinal therapy is receding in wake of ever-rising industrial demand and modernization. In addition, popularization of synthetic drugs as to that of traditional plant supported drugs have further triggered the diminishing of traditional therapy and associated knowledge. Hence, documentation and conservation of these medicinal plants have become issues and big challenges to scientific community throughout the globe. India nurtures a unique geo-climatic and phyto-geography region which harboured both hotspots (endemic species) and megabiodiversity country highlighting distinct biodiversity based livelihood systems. Further, India being as one of the megabiodiversity centres in the world, the plants endorsed rich in bioactive secondary compounds that hold promises for new drug discovery at global market level. As such majority of the Indian population chunk living in rural setup derived their livelihood from forest based minor produces and agricultural support systems. Exploitations of these natural areas under the provision of urbanization have accelerated the rate of exploitation of plants and need based knowledge. Thus, in the present scenario the medicinal plant sector is not well conserved and needs special attention. In the way of revitalizations of traditional medicines, it is an effort to record and discuss all the medicinal plants of tribal/rural areas of Himalayan and Indogangetic regions and also to prioritise their implementation in modern health care systems. The present paper will aim to highlight ethnobotanical properties and associated indigenous knowledge, livelihood and sustainable conservation of medicinal plants in Indian perspective.

Biography

Gopal Shankar Singh obtained a Bachelor and Master degree from Department of Botany, Banaras Hindu University, Varanasi, India and a PhD degree in Environmental Sciences from School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India. Currently he is serving as Professor in Institute of Environment and Sustainable Development in BHU. He is the author or co-author of 85 scientific papers/articles in peer-reviewed national and international journals and book chapters and has been serving as an editorial board member of repute. His researches focus on Ethnobotany, traditional knowledge, biodiversity conservation, natural resource management and sustainable development.

gopalsingh.bhu@gmail.com
A literature review on therapeutic uses of honey in wound healing

Henok Alebachew
Mekelle University, Ethiopia

Identification of mineral and chemical constituents present in commercially available Rasashastra drugs named 'Manikya Rasa' (MR), 'Abhrak Bhasma' (AB) and 'Abhrak Bhasma' (ABS) - prepared in the laboratory were performed using XRD, FTIR, XRF and AAS. The presence of organic constituents was established by thermo gravimetric analysis. Since only MR had significant organic matter content MR was sequentially extracted in to its hexane, dichloromethane and methanol. MR and solid residue, AB, ABS and aqueous extracts of plant constituents of ABS - Ficus benghalensis and Ricinus communis were evaluated for their antimicrobial activity against Pseudomonas aeruginosa (ATCC-27853), Escherichia coli (ATCC 25922), Staphylococcus aureus (ATCC 25923), Staphylococcus aureus – MRSA and Candida albicans (ATCC 90028) using well diffusion assay, a modified version of the same and the agar dilution assay. Mineralogical analysis revealed a number of minerals including mica, cinnabar, chalcopyrite, sphalerite, arsenolite as constituents in MR while AB and ABS consisted of altered mica and iron oxides. All the drugs showed minor amounts of toxic elements and significant amounts of essential elements. MR, its residue, solvent extracts and Ficus benghalensis aqueous extract showed significant antimicrobial activity at least against two or more microorganisms, while AB and ABS were inactive against all the microorganisms. The most susceptible bacterium was S. aureus, while none of the tested component showed activity against C. albicans. This study reveals that antimicrobial activity may be augmented with some minerals with the combinations of organic matter, as opposed to having only altered mica and iron oxides.

Biography

Henok Alebachew completed his B Pharm at the age of 22 years from Mekelle University School of pharmacy. He has been working in Food Medicine and Health Care authority of Ethiopia as a physico chemical analyst for three years and ten months in an ISO 17025 accredited laboratory, then joined Billim Pharmaceuticals and working as a medical representative.

alhenok@hotmail.com
Immunoprotective effects of ethanolic extract of the bark of *Bombax ceiba* against cyclophosphamide induced immuno-suppression in mice

Hussain Arshad  
Integral University, India

The immunoprotective effects of ethanolic extract of the bark of *Bombax ceiba* (Bombaceae) were investigated against cyclophosphamide induced immune suppression in mice. The study was carried out by performing various hematological along with serological tests moreover the assessment of immunomodulatory activity on specific and non-specific immunity was made after the administration of test extract. Humoral antibody response to SRBC measurement of antibody titer by hemagglutination reaction was done. Whereas the cellular immune response (Foot pad reaction test) the edema formation was also assessed by measuring the delayed type hypersensitivity response. Administration of ethanolic extract remarkably ameliorated both the cellular and humoral antibody responses. Cyclophosphamide injection caused a prominent reduction in the relative organ weight of the mice that includes the kidney, liver and spleen. The study result exhibit that animal treated with ethanolic extract demonstrate a significant up-regulation of cytokines including IL-6 and TNF-α in a dose-dependent manner. It is concluded that the above test extract possess promising immunoprotective properties.

Biography

Hussain Arshad has completed his PhD at age of 29 years from Jamia Hamdard University, New Delhi. He is serving as Head, Faculty of Pharmacy, Integral University, a state private University at Lucknow, India. He is engaged in teaching along with research at under-graduate and post-graduate level. His main areas of research include isolation, identification and evaluation of active/bioactive constituents from natural resources. He has published more than 35 papers in reputed journals and currently supervising eight PhD theses at the Department. He is also serving as the Principal Investigator in UP-CST funded project on “Development of Anti-cancer Herbal Nano-formulations”.

http://dx.doi.org/10.4172/2327-5162.S1.009
Pundi rasayana improves memory in animal models relevant to Alzheimer’s disease

Joshi Hanumanthachar
Sarada Vilas College of Pharmacy, India

Cure of cognitive disorders such as amnesia, attention deficit and Alzheimer’s disease is still a nightmare in the field of medicine. Nootropic agents such as piracetam, aniracetam and choline esterase inhibitors like Donepezil are being used to improve memory, mood and behavior, but the resulting side effects associated with these agents have made their use limited. The present study was undertaken to assess the potential of Pundi rasayana (PR) as a memory enhancer. The roots of the herb included in the formulation are used by the gondas tribe of Karnataka for various mental ailments. PR (2, 4 and 6 mg/kg p.o.) was administered for eight successive days to both young and aged mice. β-amyloid, scopolamine, ibotenic acid, CO2 and aging induced amnesia were the experimental models. Basal forebrain lesion induced decrease in cerebral Ach and ChAT activity were assessed, Concentrations of Norepinephrine, Epinephrine, Dopamine, 5-HT in cerebral cortex, cerebellum, hypothalamus, hippocampus, and corpus striatum of rats and mice were measured by HPLC analysis. PR significantly improved learning and memory in young mice and reversed the amnesia induced by scopolamine, β-amyloid, ibotenic acid, CO2 and natural aging. PR inhibited KCN and Carotid artery ligation induced hypoxia, reversed amnesia, neurodegeneration and produced normalizing action on discrete regions of brain and controlled alterations in neurotransmitter levels due to neurodegeneration. PR might prove to be a useful memory restorative agent in the treatment of dementia seen in elderly.

Biography
Karichedu Joshi Hanumanthachar born on 5th March 1975 at Bellary, completed his doctorate from GJUST, Hisar, Haryana. His research interests are neuroscience, behavioral psychopharmacology, herbal psychotropics, standardization of phytopharmaceuticals, Alzheimer’s and Parkinson’s disease. Published more than 131 research papers in scientific journals and presented in various national and international conferences. He is Editorial board member for international and national journals. Recognized as the most valuable reviewer by Lancet, BJPR, neuroscience journal. Reviewer for 38 international and national journals, scientific boards, Viz. Alzheimer’s disease international, UK, Alzheimer’s Association, USA, USA-ISRAEL Bi-national Science Foundation, Israel, etc. Received Sanshodhana deekshit award, young scientist award, young investigator scholarship award, travel grant/ fellowship awards from National institute of health, National institute of aging, Alzheimer’s association, USA, Alzheimer’s drug discovery foundation, UK, International brain research organization, Geneva, etc. He received 6 best research paper awards at international/national conferences. He has authored three books on management and treatment of behavior disorders, MCQs for pharmacy students, microbiology and biotechnology. He is currently working as Professor and Principal, Sarada Vilas College of Pharmacy, Mysore.

amanjoshi17@yahoo.com
Diagnosis of wounds in Ayurveda

K C Priyadarshanie Gunarathne
SDMCAH, India

Vrana is the term for wound in ayurveda. There are mainly two types of wounds according to etiology as wounds occur due to Internal cause (Nija Vrana) and External cause (Agantuja Vrana). The factors responsible for Dosha Vishamata are the aetiological factor for Nija Vrana and Agantuja Vrana occurs due to external causative factor such as animal bites, trauma, penetrating instruments, etc. Before formation of Nija Vrana there is presence of Vrana shota (abscess) according to associated prominent Dosha.

There are many classifications of wounds depending upon various features. According to main five features, wounds has classified as Pancha Lakshana of Vrana such as Vrana Vastu (site), Vrana Gandha (smell), Vrana Varna (colour), Vrana Vedana (pain) and Vrana Srava (secreations).

There are eight sites of wounds mentioned by Susrutha Samhitha and eight types of Gandha are described by Charaka Samhitha. According to the prominent Dosha, has mentioned colours of wounds, various types of pain and various types of secretions occurs in wounds and also mentioned various features of secretions according to site of the wound.

Apart from that four shapes of wounds and four stages of wounds according to the prognosis mentioned by Sushruta. There are four types of wounds according to stage of healing (Vrana Awasta).

With help of these signs and symptoms, selection of relevant treatment for better management of wounds with minimal complications can be done.

Biography

K C Priyadarshanie Gunarathne has completed her BAMS in 2003 from Institute of Indigenous Medicine, University of Colombo, Sri Lanka and currently a Post graduate scholar in Ayurveda Surgery in SDM collage of Ayurveda, RGUHS, Hassan, Karnataka. She has been a government Ayurveda practitioner for 5 years in Sri Lanka. She has published more than 25 Ayurveda medicine review articles in various magazines in Sri Lanka. She completed diplomas in Psychology and Counseling, Mass media, Acupuncture and Human rights.

kcpg@ymail.com
Correlation between ayurveda tridosha prakriti and body mass composition

Kashinath G Metri
SVYASA University, India

Introduction: Ayurveda is one of the most ancient systems of medical health care. The basic principles, diagnosis of the diseases and their treatment is on the basis of individual prakriti (birth constitutional type). Ayurveda further classifies the prakriti of an individual on the basis of a set of psychosomatic attributes of personality, depending on whether this individual belongs to Vata, Pitta, or Kapha prakriti, or any combination of them. The appropriate prakriti assessment is done by several means including questionnaires. We aimed to obtain experimental evidence correlating Ayurveda based tridosha-prakriti with western constitutional psychology somatotypes.

Methods: We employed Tridosha-prakriti questionnaire, and compared its results with a set of body composition parameters: Height, body weight, body mass index (BMI), muscle mass, fat mass and fat percentage in 50 normal healthy volunteers of both sexes with age ranging between 18 to 40 years old. Two-tailed Pearson's correlations were used to match the extreme prakriti types with the western constitutional psychology somatotypes, through the mentioned body composition measures.

Results/Discussion: Significant negative correlations were observed between the percentage of Vata attributes as per the questionnaire in the individuals and their BMI, body weight and fat mass respectively (p<0.05). Similarly, there was a significant positive correlation between the percentage of Pitta attributes with the height, body weight, and muscle mass respectively. Also, a significant positive correlation was observed between the percentage of Kapha attributes with fat mass and fat percentage, along with a negative correlation with height.

Conclusion: This study provides evidence linking the ancient science of Ayurveda to modern constitutional psychology. In this way, a concept such as prakriti is suggested to lie behind the body mass composition of an individual, and deserves attention within the scientific community.

Biography
Kashinath G Metri has completed his BAMS at the age of 26 from Rajiv Gandhi University of Health sciences Bangalore (RGUHS), Karnataka and then he competed his MD (Yoga and Rehabilitation) at the age of 30 years from S-VYASA University and currently perceiving PhD in Yoga from the S-VYASA University, Bangalore, Karnataka. He is working as an Assistant Professor in S-VYASA University. He has published 6 papers in reputed journals and has been serving as Assistant Professor and Ayurveda consultant at S-VYASA University Bangalore.

kgmhetre@gmail.com
Conquer your stress with mind/body techniques

Kathy Gruver
USA

Stress is a killer in our society; with it estimated that 60-90% of our doctor’s visits are from stress related illness. But, stress isn’t really the problem; it’s our reaction to it. And that is in our control. Learn cutting edge techniques like mini-meditations, mindfulness practices, affirmations and visualizations to take charge of your stress for better health and wellness.

Take away the current research on placebo effect and how our words and thoughts can lower blood pressure, decrease pain, enhance immune function and improve sports and athletic performance.

Investigate what happens to our physiology in the fight or flight response and how a mini-meditation can reverse that to invoke what Dr. Herbert Benson of Harvard calls the Relaxation Response.

A treasure trove of information and techniques that you can learn yourself or seek a qualified practitioner to assist you with. Conquer your Stress gives the power back to the individual to make healthy and simple mind/body choices to enhance health and take back control. Explore techniques such as sound healing, prayer, BEST, yoga, homeopathics, herbs, reiki, EFT, autogenic training, visualization and dozens more, explained simply and thoroughly. This is the perfect introduction to a multitude of varied and useful techniques.

Self-care is often overlooked with many people turning blindly to drugs and surgery. Certainly needed modalities, they can be enriched with stress-reduction, relaxation and programming the brain with mind/body therapies.

Biography

Kathy Gruver is an award-winning author and the host of the national TV show based on her first book, The Alternative Medicine Cabinet, (Winner Beverly Hills Book Awards). She has earned her PhD in Natural Health and has authored two books on stress: Body/Mind Therapies for the Bodyworker and Conquer Your Stress with Mind/Body Techniques (Finalist for the USA Best Books Award). She has studied mind/body medicine at the famed Benson-Henry Institute for Mind-Body Medicine at Harvard. Gruver has been featured as an expert in numerous publications including Glamour, Prevention, Men’s Health and Ladies Home Journal. A guest expert on over 200 radio and TV shows including NPR, SkyNews London, CBS Radio, and Lifetime Television, she has done scores of educational lectures around the world.
The concept of viruddha ahara in ayurveda shastra

Kaveri C Hiremath
Amarthya Ayurvedic Health Care, India

Diet plays an important role in our life. A balanced food is a must to maintain disease free, good health. Healthy and balanced diet takes care of one's life style, culture and geography. Depending on the season combination of food ingredients vary. Some contents present in the food complement each other.

Ayurveda clarifies how some diet and their combinations create benign effects or damage the human body causing doshas. According to Ayurveda certain diet & combination of two or more substances of food having no affinity for each other produce toxins in the metabolism procedure. The toxins are produced because of opposite properties present in them. Such incompatible diet is called Viruddha Aahar.

The concept of Viruddha Aahar is a unique to Ayurveda system. The food that has improper combinations or is wrongly processed is called Viruddha Aahaar. Also, a time, season and quantity have their impact. Certain foods not consumed at a right time of a day (kaala), season (ritu) and proper quantities (matra) can also be classified as Virruddha ahara.

This paper addresses modern food habits and cooking recopies variety of compatible and non compatible dietary activities consumed in today’s day today life and their effect on health.

hiremath10kaveri@gmail.com
Exploration of antidiabetic & hypolipidemic activity of roots of *Croton zambesicus*

Krishna Murti\(^1\), Upendra Kumar\(^1\), Kislay Kumar Sinha\(^1\) and P Das\(^2\)

\(^1\)National Institute of Pharmaceutical education & Research (NIPER), India  \\
\(^2\)Rajendra Memorial Research Institute of Medical Sciences, India

The aim of this study was to investigate the potential antidiabetic and hypolipidaemic effects of aqueous and ethanolic extracts of roots of *Croton zambesicus* in alloxan induced diabetic models to ascertain its pharmacological applicability. The roots of *Croton zambesicus* were collected, dried and extracted. The phytochemical screening as well as Median Lethal Dose determination (LD50) was done. The ethanolic extract of the roots was prepared using soxheletion technique while the aqueous extract was prepared using maceration technique. The pharmacological effects of the two extracts were monitored on the blood glucose level and the lipid profile for a period of 28 days on the alloxan induced diabetic rats and their effect was evaluated. The ethanolic (100 mg/kg) and aqueous (100 mg/kg) extracts caused a significant (p<0.05) reduction in the blood glucose levels and the lipid profiles of the alloxan induced diabetic rats. However the ethanolic extract was found to be more potent than aqueous extract in the blood glucose and lipid lowering effects in the rats. The activities of the extracts were compared with the reference drug, glibenclamide (0.5 mg/kg). Treatment with *C. zambesicus* showed considerable lowering in the blood glucose, serum total cholesterol, triglycerides, LDL cholesterol, VLDL cholesterol and an increase in HDL cholesterol in the alloxan treated diabetic rats. The results of this study suggests that the roots of *Croton zambesicus* possess antidiabetic and hypolipidaemic activities in the treated diabetic models.

**Biography**

Krishna Murti completed his PhD in Pharmacology and Pharmaceutical Sciences from Singhania University and M Pharm in Pharmacology from Manipal University, India. He is presently associated as Lecturer in Dept. of Pharmacy Practice at National Institute of Pharmaceutical Education & Research (NIPER), Hajipur, Bihar, India. He has published more than 50 papers in journal of repute and also serving as reviewer for many international journals. He is having a total experience of 14 years in Pharmacy profession. He has also served as a faculty at 7th October University, Misurata, Libya.

krishnamurti74@yahoo.co.in
Comparative studies of health care systems in Western Ladakh

Kunzes Angmo1, Bhupendra S Adhikari2 and Gopal S Rawat2

1Wildlife Institute of India, India
2International Centre for Integrated Mountain Development, India

Traditional medicine is one of the tangible heritages of the local people of Ladakh, which has been an indispensable source of both preventive and curative medicine. However, very less information is available on the social status of healers, treatment techniques and the nature of medicine used by them. The hierarchical relationships among different medical traditions their structural superiority (status and wealth) and functional strength (distribution and utilization) was studied in detail through a comparative analysis of three different traditional health-care systems (THCS), i.e., Sowa-rigpa, Shamanism and Akhnonism, with a view to conserve the valuable knowledge and the plant resources upon which these system depends. A detailed field investigation was undertaken for this purpose, which involved questionnaire survey and group discussions with the practitioners of different THCS, local people and allopathic doctors. The study was conducted across major ethnic groups (Boto, Balti and Dards) in Suru, Wakha-chu and Lower Indus Valley of Western Ladakh. At present, THCS of Ladakh provide its services to more than 30% of population. The socio-economic status of healers of Sowa-rigpa system is critical and young generation is not willing to adopt this system due to the lack of financial support, modernization and acculturation. Majority of local people are in favor of legalization of this system while they were uncertain regarding the legalization of Akhons and Shamans due to lack of scientific approach to treat the patients. According to allopathic doctors, providing training to the healers of Sowa-rigpa system on the nutrition and hygiene and allocating resources for more effective drug selection through clinical trials has potency to improve this system immensely. Akhons and shamans are less frequently visited as compared to Amchis. Shamanism has increased in recent years due to increase in non-native visitors and the proportion of young people involved in this system is highest (52%).

Biography

KunzesAngmo is native of Ladakh. She had nurtured her interest in medicinal plants from her childhood days, while accompanying her grandfather to pasturelands. She had gained a fascination for the wonders of plants that were used traditionally. This reverence and inquisition induced her to pursue scientific research more seriously. Gradually, during the years as a Master’s student she had honed skills by which she conducted systematic studies on uses of various medicinal plants of the west Himalayan state of Uttarakhand and also expanded her study area towards Western Ladakh. Recently she had submitted her PhD in Forest Botany which entitles “A study on ethno flora, with special reference to traditional healthcare system in western Ladakh”, Jammu and Kashmir from Forest Research Institute University Research Centre, Wildlife Institute of India. Her study was based on medicinal plants, Ethnobotany, Ethnobotany, Ethnobotany, Ethnobotany, Ethnobotany and traditional health care system in western Ladakh. At present, she had joined as Junior Scientist at Krishi Vigyan Kendra (Nyoma), Shere Kashmir University of Agriculture Science and Technology. She has authored about many Publications that include research articles. Her research interest includes ethnobotany, folk medicine, Ethnopharmacology and Biodiversity conservation in Indian Trans-Himalaya.

kunzes@yahoo.com
Indigenous practices of pregnant women in the greater Tubatse municipality at Dilokng hospital of the Limpopo province

Malema RN
University of Limpopo, South Africa

Indigenous Practices (IPs) are experiences generated by people living in a specific region belonging to a specific cultured group. IPs are shaped by cultural traits that are passed from one generation to the next. The practices are rooted and embedded in this society and therefore they become part of the people's life style. Believe system play a major role in the health-care seeking behaviour of individuals because they are informed by the IPs that prevails in their environment. IPs are stored in people's memories and are expressed in songs, dances, believes, rituals, cultural values, myths and curing of diseases by herbs. IPs is still mostly applied by pregnant women in Turkey and Africa. A qualitative study applying the exploratory, descriptive and contextual design was conducted at the antenatal health clinic and the maternity ward in Dilokong Hospital of the Greater Tubatse municipality, Limpopo province. The purpose of this study was to explore and describe IPs during pregnancy and delivery and to recommend guiding principles for health care professionals on the strategies that could be used to care for these women. Data were collected by conducting one-to-one interviews using a semi-structured interview guide and data saturation was reached after interviewing 15 women. Trustworthiness was ensured by prolonged engagement and the use of an independent coder who has specialized in qualitative research. Data were analysed using Tech's open coding approach. Four themes emerged namely: Indigenous practices based on ancestral knowledge, indigenous practices based on spiritual Diviners versus church principles, restricted practices versus instructions followed during pregnancy and delivery and indigenous practices during pregnancy and delivery. It is recommended that the National IPs strategy be developed to provide a framework and platform to support and scale up grass roots IPs practices in the health care system with regard to midwifery practice.

Biography

Malema RN is an Associate Professor in the Department of Nursing Science. He obtained a PhD at the University of Limpopo, Turfloop Campus in 2008. He is presently teaching Community Health Nursing Science and Research at undergraduate and postgraduate level. He is also supervising undergraduate and postgraduate research projects. He has published 12 articles in accredited journals and 3 in non-accredited publications. He has been a member of the School of Health Sciences Senior Degrees Committee for five years. He supervised 7 Masters Students and served as an external examiner for 11 Masters Dissertations from different Universities in South Africa.

Nancy.Malema@ul.ac.za
Ptks and signal transduction: The role of luteolin
Manuela Malaguti-Boyle
Deakin University, Australia

Signal transduction usually involves the binding of small extracellular signaling molecules to receptors that face outwards from the plasma membrane and trigger events inside the cell.

The role of cytoplasmic signal transduction pathways contributing to cell transformation and cancer is a generally accepted concept. The involvement of tyrosine kinase-encoded growth factor receptors and Ras in many cancers is unequivocal. Oncogenic conversion of receptor protein tyrosine kinases (RTK) is a frequent feature of malignant cells. Hyper expression and/or mutation of the ECG receptor (erbB1) and Neu (erbB2) in combination with the establishment of autocrine/paracrine loops from their ligand (EGF, TGF, heregulin, etc.) have been found in many cancers of epithelial origin. Frequent Ras mutations in some of these malignancies also contribute to a host of signal transduction pathways involving Ras, phosphatidylinositol 3-kinase, phospholipase C, protein tyrosine phosphatases, and Src tyrosine kinases. Ras, the activation of which is controlled by tyrosine kinases, in turn regulates signal transduction pathways including the mitogen-activated protein kinase (MAPK) pathway. The multiple varieties of signaling by secreted molecules are frequently divided into three general categories based on the distance over which signals are transmitted. Regulatory proteins and peptides that are signaling molecules involved in this process are generally considered factors that are expressed by one cell and are responded to by receptors on another nearby cell.

A number of botanical compounds inhibit protein kinase C (PKC). This protein is involved in receptor desensitization, in modulating membrane structure events, in regulating transcription, in mediating immune responses, in regulating cell growth and in learning and memory. These functions are achieved by PKC mediated phosphorylation of other proteins. Some flavonoids provide valuable bases for the design of analogues that could be used to specifically block particular isoforms of PI 3-kinase or PKC and their downstream-dependent cellular responses.

Luteolin has been shown significant inhibitory effects against PKCe and c-Src kinase. In several studies, luteolin inhibited PI kinase at low micromolar concentrations (<20mM). PI kinase is elevated up to fourfold in some type of cancers. Luteolin pluripotent activity is not surprising. PKC and other kinases all require ATP to donate phosphorous atoms for energy. If ATP is prevented from interacting with the enzyme, the enzyme cannot function. Luteolin has been shown to inhibit ATP-enzyme interaction.

Biography
Manuela Malaguti-Boyle, PhD, MHN is a passionate Integrative Medicine Practitioner with many years of Clinical Experience in treating patients affected by cancer both nationally and internationally. She is the Director of Clinician Solutions, an advisory service for other health care Practitioners treating cancer patients. Manuela consults as the Senior Scientific Advisor for evidence-based research of complementary medicine. She has published more than 20 papers in peer-reviewed journals in Australia and United Kingdom and is a very well know educational speaker to the Medical Oncology Community in Australia.
An overview of the use of natural compounds to reduce drug resistance in conventional cancer therapy: The role of polysaccharide krestin (psk)

Manuela Malaguti-Boyle
Deakin University, Australia

Clinical Pear:
• Appreciation of PSK, a semipurified polysaccharide obtained from the mushroom Cordyceps versicolor used extensively in clinical cancer treatment, particularly in Japan.
• As a whole, several human clinical research studies strongly suggest that PSK inhibit cancer progression and improve postoperative survival in humans due to a combination of immune stimulation and inhibition of immuno suppressive cytokines.

Background: Cancer cells are better able to adapt to stress than normal cells. In cancer treatment, this adaptation results in tumour cells that develop cancer resistance to chemotherapy drugs. This event is usually the primary obstacle to successful treatment. Finding themselves in a state of high alert, cancer cells have the ability to express resistance not only to drugs they have been exposed to, but to any other noxious agent. Multi-drug resistance is a protection mechanism that can lead to failure of the conventional cancer treatment. Research shows that natural compounds can reverse drug resistance by inhibition of P-glycoprotein, inhibition of glutathione S-transferase drug detoxification system and inhibition of heat-shock proteins. There is ample evidence suggesting that natural compounds can produce cytotoxic effects in cancer cell through a number of mechanisms and that, when they are combined with chemotherapy drugs, these effects are often additive or synergistic.

Methods: A review of randomized controlled trails of the mechanisms by which cancer cells, exposed to chemotherapy, have the ability to devise strategies for resistance and survival. EBSCO, MedLine, and PubMed articles from 1992 to 2012 to were researched to retrieve suitable information. Five double blind placebo controlled clinical human and animal studies were reviewed.

Results: All the control studies conducted in large multi-centre trials, confirmed improvement in patient survival on a dose of 3 grams of PSK per day orally unless noted. Key findings are as follow:

1. Two hundred sixty-two postoperative stomach cancer patients were randomized to receive chemotherapy or chemotherapy and PSK. The addition of PSK increased the five-year disease-free rate (from 59% to 71%) and the five year survival rate (from 60% to 73%).
2. Four hundred and sixty-two patients with curatively resected colon cancer were randomized to receive chemotherapy or chemotherapy plus PSK. The latter combination increased the eight-year disease free rate (from about 7.8% to 28 %) and the ten year survival rate (from 19% to 36%).
3. Two hundred and seventy-eight patients with stage II aT2N1 estrogen-dependent breast cancer were randomized to receive chemotherapy or chemotherapy. The administration of PSK increased the five year survival rate (from 81% to 96%). Disease-free survival also increased.
4. Thirty-eight patients with nasopharynx cancer who were treated with radiotherapy, with or without chemotherapy, were randomised to receive PSK or no PSK. The addition of PSK increased survival rate (from 15 to 35 months). The PSK dose was 1 gram per day orally.
5. Thirty-eight patients with nasopharynx cancer who were treated with radiotherapy, with or without chemotherapy, were randomised to receive PSK or no PSK. The addition of PSK increased survival rate (from 15 to 35 months). The PSK dose was 1 gram per day orally.

Conclusion: These results demonstrate that Polysaccharide-K (PSK) has potent anti-tumour effects.

An overview of the use of natural compounds to reduce drug resistance in conventional cancer therapy: The role of polysaccharide krestin (psk)

Manuela Malaguti-Boyle
Deakin University, Australia

Clinical Pear:
• Appreciation of PSK, a semipurified polysaccharide obtained from the mushroom Cordyceps versicolor used extensively in clinical cancer treatment, particularly in Japan.
• As a whole, several human clinical research studies strongly suggest that PSK inhibit cancer progression and improve postoperative survival in humans due to a combination of immune stimulation and inhibition of immuno suppressive cytokines.

Background: Cancer cells are better able to adapt to stress than normal cells. In cancer treatment, this adaptation results in tumour cells that develop cancer resistance to chemotherapy drugs. This event is usually the primary obstacle to successful treatment. Finding themselves in a state of high alert, cancer cells have the ability to express resistance not only to drugs they have been exposed to, but to any other noxious agent. Multi-drug resistance is a protection mechanism that can lead to failure of the conventional cancer treatment. Research shows that natural compounds can reverse drug resistance by inhibition of P-glycoprotein, inhibition of glutathione S-transferase drug detoxification system and inhibition of heat-shock proteins. There is ample evidence suggesting that natural compounds can produce cytotoxic effects in cancer cell through a number of mechanisms and that, when they are combined with chemotherapy drugs, these effects are often additive or synergistic.

Methods: A review of randomized controlled trails of the mechanisms by which cancer cells, exposed to chemotherapy, have the ability to devise strategies for resistance and survival. EBSCO, MedLine, and PubMed articles from 1992 to 2012 to were researched to retrieve suitable information. Five double blind placebo controlled clinical human and animal studies were reviewed.

Results: All the control studies conducted in large multi-centre trials, confirmed improvement in patient survival on a dose of 3 grams of PSK per day orally unless noted. Key findings are as follow:

1. Two hundred sixty-two postoperative stomach cancer patients were randomized to receive chemotherapy or chemotherapy and PSK. The addition of PSK increased the five-year disease-free rate (from 59% to 71%) and the five year survival rate (from 60% to 73%).
2. Four hundred and sixty-two patients with curatively resected colon cancer were randomized to receive chemotherapy or chemotherapy plus PSK. The latter combination increased the eight-year disease free rate (from about 7.8% to 28 %) and the ten year survival rate (from 19% to 36%).
3. Two hundred and seventy-eight patients with stage II aT2N1 estrogen-dependent breast cancer were randomized to receive chemotherapy or chemotherapy. The administration of PSK increased the five year survival rate (from 81% to 96%). Disease-free survival also increased.
4. Thirty-eight patients with nasopharynx cancer who were treated with radiotherapy, with or without chemotherapy, were randomised to receive PSK or no PSK. The addition of PSK increased survival rate (from 15 to 35 months). The PSK dose was 1 gram per day orally.
5. Thirty-eight patients with nasopharynx cancer who were treated with radiotherapy, with or without chemotherapy, were randomised to receive PSK or no PSK. The addition of PSK increased survival rate (from 15 to 35 months). The PSK dose was 1 gram per day orally.

Conclusion: These results demonstrate that Polysaccharide-K (PSK) has potent anti-tumour effects.
Anacardic acid: From improvement of food composition to functional foods

Maria Teresa Salles Trevisan
Federal University of Ceará, Brazil

Anacardium occidentale Linn. (cashew) a member of the family Anacardiaceae is a tropical tree indigenous to Brazil, which is now extensively cultivated in India and east Africa. India is the largest producer of cashew nut, accounting for almost 50% of world exports. Cashew nut shell liquid (CNSL) is an important agricultural by-product of cashew nut production. The potential annual availability of this material, which accounts for about 32% of the shell, is enormous. In our work it is showed antioxidant and gastroprotective activity, xanthine oxidase and angiotensin I converting enzyme inhibition. Supplementation with anacardic acids has a protective role against oxidative and inflammatory mechanisms in the lungs of mice exposed to diesel exhaust. Inclusion of anacardic acid in yellow eggs is important and could bring to the market a new kind of functional food. The effect of anacardic acid on carotenoid stability of spray dried shows a carotenoid increasing in 25% in relation no added antioxidant for spray dried yolks being also effective in retarding the lipid oxidation.

Biography

Maria Teresa Salles Trevisan graduated from São Carlos Federal University in Brazil in 1986, obtained her Master Science in 1989. She worked as a Visiting Scientist in Alagoas Federal University from 1989 to 1992. Her PhD was in Plant Biotechnology, obtained in 1997 at Leiden University, The Netherland. She began to work as a lecturer at Ceará Federal University in 1998, where she conducted research and supervised students from the post-graduation course in Organic Chemistry, from 2002 to 2003 postdoctoral studies at German Cancer Research Center (DKFZ) in Heidelberg. Recently she was promoted as Associate Professor IV at the Ceará Federal University. She has published more than 35 papers in reputed journals.

Maria Teresa Salles Trevisan, Altern Integ Med 2014, 3:3
http://dx.doi.org/10.4172/2327-5162.S1.009
MAThes, a unique French-based thesaurus for traditional or conventional knowledge indexation and information retrieval in “Associated Medicine”

Martin Sanou
Université de Nantes, France

Background: The new notion of public health called “Associated Medicine” evaluates the ability of a health care system and its actors to use medical or biomedical paradigm of another health care system. Hypothetically, a controlled vocabulary could guide conventional practitioner of a health care system “A” to learn from a traditional healer’s concepts of a health care system “B”.

Objectives: developing a unique French-based thesaurus for traditional and/or conventional knowledge indexation and information retrieval in order to facilitate communication between health care actors and to promote integration between traditional medicine and conventional medicine.

Methods: We collected technical and commercial data sheets of African traditional healers. Then, we created a corpus of text from these documents. The extraction of candidate terms was realized by natural languages processing and terminology development procedures. The thesaurus was designed by a certified thesaurus builder software and Protégé tool. A final validation test of documentary research was performed on the browser of the review of exotic pathology Society.

Results: The Thesaurus of Associated Medicine (MAThes) is composed of 1190 multilingual descriptors located in 10 semantic fields. The concepts were both from traditional medicine and conventional medicine. Some words were indexed in other biomedical terminological resources as the French MeSH or CISMeF.

Conclusion: The development of a controlled vocabulary showed that traditional healers were associated with conventional indexed concepts which were integrated into their communication systems and medicinal practices. Thus were justified the concept of Associated Medicine. We could now study the capacity of a conventional practitioner to use traditional concepts for preventing or managing health risks related to wrong knowledge representations.

Biography

Martin Sanou has completed his PhD at the age of 37 years from Nantes University of France and dental studies from Casablanca University School of Dentistry. He is the manager of an international project on CAM named LaVMA (Virtual Laboratory of Associated Medicine). He has published “Conventional medical attitudes to using a traditional medicine vodou-based model of pain management: survey of French dentists and the proposal of a pain model to facilitate integration” in Journal of Chiropractic Humanities (2012).

martinsanou@gmail.com
Antifungal and antibacterial activity and chemical composition of polar and non-polar extracts of Athrixia phylicoides determined using bioautography and HPLC

Martin Steven Myer
College of Agricultural and Environmental Sciences, South Africa

Background: Athrixia phylicoides DC. (Asteraceae) is used medicinally in South Africa to treat a plethora of ailments, including heart problems, diabetes, diarrhoea, sores and infected wounds. It is also prepared in the form of a tea (hot decoction) taken as a refreshing, pleasant-tasting beverage with commercialization potential.

Methods: Extracts of the dried ground aerial parts were prepared using organic solvents (diethyl ether, dichloromethane/methanol, ethyl acetate and ethanol) and water. These extracts were subjected to HPLC, TLC and bioautography analysis with the aim of linking a range of peaks visualized in HPLC chromatography profiles to antibacterial and antifungal activity of the same extracts.

Results: HPLC revealed a group of compounds extracted by more than one solvent. Compounds identified include inositol, caffeic acid, quercetin, kaempferol, apigenin, hymenoxin and oleanolic acid. The organic extracts displayed similar TLC profiles, and bioautography indicated approximately five antibacterial compounds, but only two antifungal compounds in these extracts. Bioautography indicated that cold water extracted the least antimicrobial compounds.

Conclusions: Several previously unknown compounds were identified in Athrixia phylicoides extracts, and bioautography indicated a number of antibacterial and antifungal compounds. There were notable differences in chemical composition and bioactivity between the organic and aqueous extracts. Further research is necessary to fully characterize the active components of the extracts.

myer.msm@gmail.com
Report on treatment of various kidney and urinary tract symptoms with faradarmani

Mohammad Ali Taheri
Taman Universiti, Malaysia

Introduction: Faradarmani an Iranian complementary and medicine falls under Mind-Body Intervention and sub-category of Mental Healing. Faradarmani, as a qualitative method of treatment, is carried out through software-based approach without making any intervention in classic conventional medicine or any quantitative and hardware manipulation. It is based on theory of “consciousness bond of parts”. Faradarmani can be considered in treating various kinds of diseases. The presented report attempts to investigate effectiveness of Faradarmani on treatment of kidney and urinary tract disorders.

Method: A report was prepared from 22 volunteers who self-reported suffering from various kidney and urinary tract problems before commencing Faradarmani. Through Faradarmani connection patient becomes connected to Interuniversal Consciousness via Fara-therapist and undergoes Scanning process. Patients were asked to close their eyes for 15-20 minutes once or several times a day to undergo Faradarmani scanning. Criteria for recovery are patient's self-reports. Graphics display Faradarmani's effectiveness on patients' symptom relief based on age, sex and education.

Results: Among the total of 22 patients (45/5% female, 54/5% male, 24 to 63 years of age, education level: high school drop-out to PhD), 6 types of kidney and urinary tract problems were treated with Faradarmani that include: renal stone, urinary tract infection, urinary incontinence, bladder cancer, benign prostatic hyperplasia, prostate cancer.

Conclusion: Faradarmani can be suggested to patients suffering from kidney and urinary tract problems. However results show necessity of carrying out further randomized clinical trial studies on the effectiveness of Faradarmani in treating various illnesses including kidney and urinary tract disorders.

Biography
Mohammad Ali Taheri has been involved for more than 3 decades since the foundation of Halqeh mysticism (Interuniversal mysticism) and its subdivisions, including the two complementary and alternative medicines of “Faradarmani” and “Psymentology,” in Iran. He has been able to receive many global prizes and doctorate degrees by various countries such as Armenia, Azerbaijan, Russia, Japan, Belgium, Romania, etc. His theories have been presented in over 25 international conferences. Some of his already published books include: “Halqeh mysticism”, “Human From Another Outlook,” “Human Worldview,” “Non-organic Viruses,” “Human and Insight,” “Collection of Articles,” and “Management from holistic perspective.” (It is estimated to reach around 130 titles). He holds a BS degree in Mechanics (Turkey).

mataheri2011@gmail.com
Chemoprofiling of volatile oils from the leaves of traditional medicinal plant; Clerodendrum phlomidis L.

Mohammad Jameel
Jamia Hamdard, India

Clerodendrum phlomidis L., syn. C. multiflorum Burm (Verbenaceae) is commonly known as Arni in Hindi, Agnimantha in Sanskrit and Clerodendrum or wind-killer in English. It is distributed throughout the India in the drier parts, Malay, Peninsula, Baluchistan, and Sri Lanka. The genus is being used as medicines specifically in Indian, Chinese, Thai, Korean, Japanese systems of medicine for the treatment of various life threatening diseases such as syphilis, typhoid, cancer, jaundice and hypertension. The leaf paste with sugar is given to reduce malarial fever. Leaves are grounded with certain other plant ingredients, stirred in water and administered to sun stroke patients it also used in stomach pain and dyspepsia.

A hydrodistilled extract from the flowers of C. phlomidis (yield 0.05 % v/w), was analyzed by GC and GC-MS. Fifty one constituents (99.57%) were positively detected in the volatile oil for the first time. The prominent components were characterized as twenty four aliphatic hydrocarbons (78.30%), thirteen monoterpen (5.07%), and fifteen sesquiterpene (16.2%). Aliphatic hydrocarbons were composed of nine alkane (25.99%), five cyclic hydrocarbons (18.81%), four aliphatic alcohols (1.35%), three aliphatic aldehyde (1.36%), one alkene (28.42%), and one oleic acid (2.37%). Eugenol (1.34 %), and trans-verbenol (1.23 %) were monoterpenes. The sesquiterpenes included hydrocarbon α-longipinene (0.94 %), humulene epoxide (2.92%), and sesquiterpene alcohols viz spathulenol (1.14%), α- bisabolol (2.73%), and α- cadinol (1.43%). Di butyl phthalate (3.65%) was the aromatic constituents. Thirty one chemical constituents were present in the trace amount less than 1%.

japhd011@rediffmail.com

Mohammad Jameel, Altern Integ Med 2014, 3:3
http://dx.doi.org/10.4172/2327-5162.S1.009
A study of the phytochemical properties and the synergistic effect of Mesembryanthemum crystallinum Linn. on some human pathogenic bacteria

Muftah Ali M Shushni
Tripoli University, Libya

The increased prevalence of antibiotic resistance, as a result of extensive antibiotic use, may render the current antimicrobial agents insufficient to control, at least, some bacterial infections. The aerial part of Mesembryanthemum crystallinum was extracted by maceration with methanol (96% v/v) to exhaustion. The solvent was evaporated under reduced pressure. The decoction of the plant is used in traditional folk remedies as vaginal douche to treat vaginitis. To evaluate antimicrobial activity, the agar disc-diffusion assay was used against a Gram-positive bacteria (Staphylococcus aureus) and two Gram-negative bacteria (Escherichia coli and Pseudomonas aeruginosa). The methanolic extract did not show any inhibitory effect on the tested bacterial strains. Association of antibiotics and the plant extract showed synergistic antibacterial activity especially with Ciprofloxacin, Tetracyclin and Amikacin. The antioxidant activity of the methanolic extract was investigated using TLC plate method with DPPH, their antioxidant characters were also tested utilizing DPPH as the radical reagent and ascorbic acid as reference. The methanolic extract showed effective free radical scavenging. The major chemical constituents reported from the plant parts are flavonoids, saponins, steroids, triterpenoids and phenolic compounds which show that this plant part can be a potential candidate to be used as a therapeutic agent.

muftah.shushni@yahoo.com
Hibiscus sabdariffa L. (roselle) is a member of the Malvaceae family. Roselle is native from India to Malaysia, where it is commonly cultivated and must have been carried at an early date to Africa. It has been widely distributed in the Tropics and Subtropics of both hemisphere and in many areas of the West Indies and Central America, has become naturalized. Plant polyphenols act as antioxidants mainly by trapping reactive oxygen species and by regenerating endogenous membrane-bound α-tocopherol (vitamin E). In both processes polyphenols are oxidized. Hence, knowledge of the oxidation mechanisms of polyphenols is important in understanding their antioxidant activity at the molecular level. This work initially focuses on anthocyanins (pigments), flavanols (tannins), and phenolic acids an important class of polyphenols which are relatively abundant in the human diet. The oxidation of the 3',4',7'-trihydroxyflavylum ion (1) and catechin (2), as models for anthocyanin and tannin, were investigated. Both polyphenols are shown to form o-quinone intermediates upon hydrogen atom abstraction and subsequent radical disproportionation. The quinone of 2 and a second antioxidant molecule would quickly couple to form dimers. In contrast, 1 is extensively degraded into coumarins by repeating sequences of oxidation. In aqueous solutions, 1 is a mixture of coloured and colourless forms. Chalcones(3) are also shown to take part in the antioxidant activity. Pharmacological studies demonstrated the extracts from the dried roselle calyx significantly lower the LDL level by 57% as well as reducing cholesterol deposition in Sprague Dawley rat's aorta. Toxicity evaluation of the roselle's extracts on Sprague Dawley rat showed no sign of toxicity. Anthocyanin of roselle calyces made up of sambubioside (β-Dxylopyranosyl-(1-2)-D-glucopyranoside of cyanidin or delphinidin. Red anthocyanin showed high anti-oxidative activities, besides gallic acid and protocatechuic acid found in the flower. The yellow flower contains flavonoglucoside; hibiscritin. By mimicking the stomach model, the flavonoids were broken-down to simple phenols which have an effect in lowering the LDL. In conclusion, roselle is a medicinally nutritive juice if consumed daily would have the potential in lowering blood cholesterol level and helps to improve cardiovascular activity through its high anti-oxidant activity.

mzak@um.edu.m
Study on bioactive compounds in some Tunisian medicinal and aromatic plants

Nabiha Bouzouita
High School of Food Industries, Tunisia

The essential oils, isolated by hydrodistillation, from the aerial parts of Thymus capitatus, Ocimum basilicum, Myrtus communis, Laurus nobilis, Lavandula stoechas, Ruta graveoleus, Juniperus phoenicea, Mentha pulegium, Citrus bergamia risso, Cyperus rotundus, and three varieties of Eucalyptus camaludulensis, rudis and lehmanii, were analyzed by gas chromatography (GC) and gas chromatography coupled to mass spectrometry (GC-MS). The highest oil yield was obtained from Citrus bergamia risso (9.7%), while the lowest one was obtained from Ocimum basilicum (0.2%). Monoterpenes hydrocarbons were dominant in Myrtus communis, Juniperus phoenicea, Citrus bergamia risso oils (68.3, 63.93 and 66.37%, respectively), the other essential oil were dominated by oxygen-containing monoterpenes, from 59.39% to 92.40%. The essential oils investigated, exhibited good antioxidant activities when tested by DPPH free radical-scavenging ability and bleaching β-carotene in linoleic acid system. Evaluation of antimicrobial activity of the essential oils, against different microorganisms: Escherchia coli, Pseudomonos aeruginosa, Klebsiella pneumonia, Salmonella enteritidis, Staphylococcus aureus, Streptococcus A, Candida albicans and Geotrichum candidum, was assessed by submerged culture method and measurement of determination of minimum inhibitory concentration. The isolated essential oils have potential for development as natural antimicrobial and antioxidant agent. Cytochrome P450s (CYPs) inhibitory activity of Tunisian Salicornia herbacea L., and Cyperus rotundus methanol extracts studied for the first time was evaluated against three CYP isozymes namely CYP1A2, CYP3A4 and CYP2D6. The two extracts were a potent inhibitor against CYP2D6 respectively with (IC50=3.88±0.02 µg /mL) and (EC50=11.13±0.04 µg/mL).

Biography

Nabiha Bouzouita is Professor in High School of Food Industries in Tunisia; she has obtained in 2003 Thesis of Doctorate at Faculty of Sciences of Tunisia. She has completed postdoctoral studies from Walloon Center of Industrial Biology in Liege Belgium. Its field of competence is Natural products (Aromatic and Medicinal Plants). She is director of the Laboratory of valorization of natural substances of plant origin in High School of Food Industries, and she is overseeing several PhD She has published more than 20 papers in reputed journals.

bouzouita.nabiha@laposte.net
Ayurved panchkarma: A panacea for chronic diseases

Narayan Jadhav
Dhanvantari Ayurveda Medical College & Hospital, India

In Ayurveda, Panchkarma therapy is an unique and a complete holistic approach, to the elimination of the root cause of every chronic disease. In India, Chronic diseases contribute 53% of death and 44% of disability adjusted life year lost.

Charakacharya has described that moderate imbalance in Doshas can be pacified by Shamana i.e. palliation, such as administration of drugs, diet & life style modification, but deep rooted imbalances in Doshas can be completely eliminated by the administration of Shodhana therapies (Bio-purification) such as Panchkarma, including Vamana, Virechana, Anuvasana & Asthapana Vasti & NasyaKarma.

These therapies detoxify, strengthen tissues & enhance cell's inner intelligence to facilitate self-healing to help, eliminate chronic diseases & promote longevity.

Chronic diseases such as Arthritis, Asthma, Cardiac disease, Cancer, Stroke, Skin disease, Obesity & Epilepsy are among the most common, costly & preventable of all health problems in India.

Panchkarma therapies are widely practiced across the country & also getting Global attention, so there is urgent need to standardize the procedure with respect to its safety & efficacy. With this intent the attempt is made to assess the role of different panchakarma therapies in various chronic diseases.

In this studies 443 cases of different chronic diseases were treated by Panchkarma Therapies in which Vamana – 99 (15.76%), Virechana – 225 (35.82%), Anuvasana – 102 (16.24%), Asthapana Vasti – 137 (30.92%) & Nasya Karma – 65 (10.35%).

These therapies are found beneficial to all chronic cases, covering a wide range of preventive, curative and promotive aspects.

Biography

Narayan Jadhav is working as Associate Professor & HOD in the Department of Rognidan & Vikruti Vigyan in Dhanvantari Ayurved Medical college & Hospital Udgir (M.S.) India. He is Chief consultant in Sushrut Ayurved Hospital and Research Center, Udgir and founder of Dhanvantari Sevabhavi Pratishan & Academy of Ayurveda & Integrative medicine. He completed his graduation (BAMS) from RT Ayurved College & hospital Akola & post Graduation (MD - Kaychiktsa – Internal Medicine) from Govt. Ayurveda college, Nanded & MBA (Health Care) from Global open university, Nagaland. He is trained in Proctology at Faculty of Ayurveda, IMS (BHU) & received specialized training in Rheumatology and Panchkarma at Vaidyaratanam Ayurveda College, Ollur, Dist Thrissur Kerala. His research interests are Ayurvedic Diabetology, Dermatology, Rheumatology, Proctology, Cardiology, Panchakarma, Kshar Sutra, Agnikarma He presented 11 Research papers in international and national conference and published 4 articles in international journals. He has 13 years of clinical and teaching experience.

dmnarayan52@gmail.com

http://dx.doi.org/10.4172/2327-5162.S1.009
Speciation of chromium in medicinal plants from selected farms in the vicinity of ferrochrome

Owolabi IA
Tshwane University of Technology, South Africa

Chromium (Cr) is one of the most and important trace metals which can be present in two oxidation states: toxic Cr(VI) and non-toxic (Cr III). Cr(III) is an important microelement for plant and animal nutrition and essentials for the maintenance of glucose as well as for the lipid and protein metabolism. With regard to human health, Cr(III) is a required nutrient, with 50–200 μg per day recommended for adults. On the contrary, Cr(VI) is toxic and carcinogenic, leading to lung cancer, skin allergy and probably also to asthma and renal diseases. A toxic effect for the biological systems is attributed to the ability of Cr(VI) to migrate across the cell membrane, thus enhancing the intracellular chromium concentration. Hexavalent chromium is rarely found in nature and is generally man-made, especially in fumes generated during the ferrochrome production. The permissible exposure limit (PEL) of chromium in air is 5 μg m⁻³ measured as Cr(VI). The dust with Cr(VI) could be a source of contamination of medicinal plants. Therefore, it is essential to monitor the concentration of Cr(VI) in the environment, to determine the risk of Cr(VI) to human health, not only from air breathing, but from the dust which settles on agricultural products grown in vicinity of chromium smelters and when into medicinal plants. For these studies, the samples of industrial dust, soil, bark of trees and medicinal plants samples were collected in the vicinity of chromium smelters and from local market. All measurements were carried out using a Perkin Elmer atomic absorption spectrometer model A Analyst 600 with Zeeman background correction.

Biography

Owolabi IA currently writing his dissertation for awarding of MSc degree in Chemistry from Tshwane University of Technology, Pretoria, South Africa and working on the project titled Speciation of Chromium and Vanadium in Medicinal Plants from Selected Farms in the Vicinity of Ferrochrome and Vanadium mine. He is also working in the Chemistry department of the above mentioned institutions as Assistance Lecturer and Lab Assistance. It had acceptably presented in numbers of conferences and had two manuscripts waiting for the publication. He is will continually proceed for PhD

OwolabiIA@tut.ac.za
Nanoparticles as a medical intervention vis a vis rasaauadhis: A perspective

Pallavi Borah
Assam Health Department, India

Introduction: Today, a new chapter is been added in modern medicine with the use of nano particles for medical cure. Techniques for imaging nanoparticles dynamics have indicated their affectivity in treating conditions like malignancies, they can directly target cancer cells and destroy them and thus chemotherapy drugs are using nanoparticles. Concepts of fighting ageing by using nanoparticles are topics of research study today. The fact is if we ponder on our very own science of Ayurveda, we realize that this is not an ultimate and unique invention of modern medicine. On the contrary, this is what rasa shastra, bhasma ausadhis is all about.

Methodology: This paper shall highlight different nano particles used as medical cure and compare their advocacies in Ayurveda. Modern medicine argues that use of rasa ausadhis can be hazardous on grounds of being metals which can be detrimental to kidneys, e.t.c. However, little importance has been given to the criteria of rasa ausadhis like ‘samyak mrit pariksha’vaaritar’, ‘Rigorous sodhan prakriyas or purification procedures’, e.t.c. All this ensures miniscule form of drug or if may be put from the abstract’s perspective- in ‘nano form’. Most of the time they are prescribed as linctus or as lehyas thereby ensuring minute doses. Swarna bhasma and other rasa ausadhis are used as rasayan, in kshay, pandu where there is deplorable immunity conditions and today modern researchers have developed methods to fight ageing with nanoparticles that identify ageing cells and releases themselves. Again they have been indicated as antioxidants. Diseases like leukaemia, brain tumours are being intervened with diamond attached drugs. Ayurveda too advocates use of ‘hirak bhasma’ in several conditions.

Conclusion: In fact, it’s high time one ponders on these already available rasa ausadhis and their use in different conditions and be reiterated that Rasa ausadhis are indeed a golden inclusion in the history of ayurveda and should be put to use with greater conviction for the larger interest of human health.

Biography

Pallavi Borah completed her graduation at the age of 24 and post graduation in basic principles of Ayurveda (Samhita and Siddhanta) from Gauhati University and her post graduate diploma in Hospital and health management from Indira Gandhi open University. She has won twice DABUR AYUR MEDHA, A.N Sharma and Dr S.P Sharma Award. She is a Medical Officer in state health department, Government of Assam, India. She has made paper presentations in various topics in national conferences, has been organizing student sensitization sessions amongst teenage on topics like sex education, etc., was health talks’ presenter on All India Radio, Guwahati and was an anchor in television programs.

pallavijkmik@yahoo.co.in
Characterization of phenolic compound isolated from the leaves of Ficus glomerata and evaluation of their antidiabetic activity in streptozotocin-induced diabetic rats

Ram Kumar Sahu¹, Amit Roy¹ and Arvind Kumar Jha²

¹Columbia Institute of Pharmacy, India
²Shri Shankaracharya Institute of Pharmaceutical Sciences, India

Background: The local traditional practitioners of Bilaspur division of Chhattisgarh state have been using Ficus glomerata (leaves and barks) for the treatment of diabetes, bronchitis, dry cough, diseases of kidney, spleen, dysentery, diarrhoea, bilious affections, inflammations, cancer and aphrodisiac. The previous studies conducted on Ficus glomerata are not sufficient for fully understand about the safety, the bioactive component and the pharmacological properties.

Aim: In the present study, we planned to isolate and characterize the phenolic component present in Ficus glomerata, and to assess its antidiabetic effect.

Methods: Six compounds were isolated from the methanol extract of leaves of Ficus glomerata by using column chromatography. The structure of the isolated compound was elucidated by interpretation of FTIR, 1D (1H-NMR and 13C-NMR), 2D (HMQC, HMBC COSY, NOESY) NMR spectroscopy and mass spectrometry; and by comparison of their spectral data with those reported in the literature. The antidiabetic activity of isolated compound was evaluated in streptozotocin-induced diabetic rats.

Results: The compound IV was characterized as 3-methoxy-5,7,5′-trihydroxyflavone. Oral administrations of the isolated compound at doses of 25 mg/kg body weight, significantly decreased serum glucose, total cholesterol, triglycerides and low density lipoprotein level, while increased in high density lipoprotein level in diabetic rats.

Conclusion: The experimental findings demonstrated that novel compound 3-methoxy-5,7,5′-trihydroxyflavone isolated from methanol extract, exhibiting significant antidiabetic activity. It is indicating that this phenolic compound is responsible for the antidiabetic effects previously observed for the extract from this plant. The outcome from this investigation may be used as a support for possible phytopreparations in the future with Ficus glomerata as raw material.

ramsahu79@yahoo.co.in
Aloe vera in the management of oro-mucosal diseases

Ravikiran Ongole
Manipal University, India

Various disorders affect the oral mucosa, some of which are exclusive to the oral cavity and others are oral manifestations of systemic disorders. Many of these disorders are recalcitrant to routine medications. Some of these disorders such as lichen planus, aphthous stomatitis and radiation induced mucositis can be effectively managed with natural products such as Aloe Vera.

Oral lichen planus (OLP) is a chronic inflammatory mucocutaneous disease characterized by outbreaks and flares. It affects approximately 0.2-1.9% of the population. Though the exact etiology is unknown, it is considered as an immune mediated disorder with epithelial damage. OLP is also considered as a potentially malignant disorder with malignant transformation rate of 0.4-5%.

Several topical and systemic treatments are available for patients with OLP, however there is no fully resolutive and effective treatment. Presently the first line of treatment is the use of topical and systemic corticosteroids, followed by immunomodulatory drugs. The main inconvenience of these treatments is represented by side effects they usually produce such as fungal infection, adrenal suppression, burning sensation and xerostomia.

We have extensively studied the clinical benefits of Aloe-Vera in various oromucosal diseases and this presentation will highlight the beneficial effects of Aloe Vera to manage oral lichen planus and also explore its potential role in managing other oro-mucosal diseases.

Biography
Ravikiran Ongole earned his Master's Degree in Oral Medicine and Radiology Manipal University, India in 2002. He is presently working as Professor and PhD Guide at Manipal College of Dental Sciences, Mangalore, India. He has edited and authored 2 text books and authored over 30 papers in reputed journals. He has worked on projects related to oral cancer funded by Department of Science and Technology, Government of India. He is presently working on a collaborative research project using Mobile Technology for Cancer Screening in association with John Hopkins Hospital and Boston University, USA. He has guided over 10 dissertations for the award of Master's Degree and presently guiding over 15 research studies. He has presented various scientific papers and has delivered guest lectures. He was awarded the good teacher award by the University in 2012 and won an award for his innovation to improve diagnostic radiography. He is one of the panelists of the curriculum board for the Indian Academy of Oral Medicine and Radiology.

oralcare@gmail.com
Effects of Pothos scandens L. extracts and isolated 5-oxoundecyl-3-hydroxypentanoate on experimental allergic rhinitis in rats

Saurabh Gupta1, Basavan Duraiswamy2, Satish Kumar Muthureddy Nataraj2, Raju KRS3, U V Babu1, L M Sharath Kumar3, Renu Gupta4 and U Parikh1

1Indore Institute of Pharmacy, India
2J.S.S. College of Pharmacy, India
3The Himalaya Drugs Company, India
4Dr. Batra’s Nirala Bazaar, India

The present study was carried out to clarify the effects of extracts and isolated compound of the aerial part of P. scandens L. on Type I hypersensitivity reaction experimental allergic rhinitis (AR) models. The test drugs like (PSE, PSA and 5OHP) are administered p.o. after the challenge with allergen. PS extracts and 5OHP at maximum dose levels was able to significantly decrease the time spent in nasal rubbing in Wistar rats sensitized to OVA (10 µg /10µl/nostril), in pre-antigen (OVA and alum mixture), while mean value indicated that only at 200 mg/kg showed significant (P<0.001) enhanced ability in reducing the number of sneezes, time spent in nasal rubbing and inducing a greater time lag in the onset of sneezing. In Lipopolysaccharide induced hyperplasia in rat model early and late symptoms evaluated in nasal lavage fluid (NLF) i.e Total (WBC) and differential leucocytes count (DLC) levels in NLF. Similarly estimation of histamine in nose tips and histological changes in nasal septal mucosa were evaluated. The results reveal a significant increase in WBC and DLC and in LPS induced AR. However, these elevated level of WBC and DLC significantly (p<0.001) reduced by PSE, PSA and 5OHP at maximum dose level in NLF. While, PSE at 200 mg kg-1 demonstrated uniform inhibition of WBC and DLC count levels like eosinophil, neutrophil and monocyte count and elevation of lymphocyte count) in the NLF. Similar observations obtain for histamine in nose tip. However, the mean value indicated that the PSE at 200 mg/kg showed a significant restoration in all the parameters. Histopathology revealed justifies the effectiveness. The present finding provides evidence that P. scandens extract and isolated 5OHP inhibits Type I hypersensitivity reaction in allergic rhinitis. P. scandens is a potential herbal medicine for AR.

saurabhgupta80@gmail.com
Present study was conducted to determine the concentration of heavy metals from compound herbal drugs such as Dawa-ul-Misk Moatadil Jawahir Dar (D’Misk), Laboob-e-Kabeer (L’Kabeer), Majoon Dabeed-ul-Ward (D’Ward) and Majoon Flasfa (M’ Falasfa) manufactured by national herbal products companies Ajmal Dawa Khana (A.D.K), Hamdard Laboratories (H.L) and Qarshi Laboratories (QL). Heavy metals such as Chromium (Cr), Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Manganese (Mn), Nickel (Ni) and Zinc (Zn) were determined by using Atomic Absorption Spectrophotometer. The results showed that with regards to concentration of Co, Cu, Mn, Fe and Zn all the herbal drugs are safe to use. Whereas Cr in D’Misk manufactured by Q.L was higher as compared to normal level which might cause toxic effects. Lead was also found in higher concentration in all the herbal products except, in L’Kabeer of H.L, D’Ward and M’Flasfa manufactured by A.D.K. Nickel concentration in D’Misk manufactured by Q.L and M’Flasfa manufactured by H.L was also high with regard to normal recommended limits. The literature showed that concentration of heavy metals in different plants is always unpredictable and greatly varied. These variations might be due to contaminated soil, ill storage conditions of the raw material as well as contamination during any step of production. As determination of heavy metals from compound herbal drugs is a preliminary study. Therefore a detailed study is proposed to detect heavy metals from all the market available compound herbal drugs before use.

Biography

Syed Kashif Shahid has completed his Bachelor, Bachelor of Eastern Medicine & Surgery (with Distinction) and M Phil in Phytomedicine from The Islamia University of Bahawalpur, Punjab, Pakistan. He is serving as Assistant Director at University of Gujrat, Punjab, Pakistan. He has published many research articles in renowned international journals. He is the author/co-author/editor of 12 books. He also supervised many research projects.

kashif.shahid@uog.edu.pk
Comparative chemical analysis and safety study of some kushtajat (calcined products) used in Unani system of medicine

Tajuddin
Aligarh Muslim University, India

Kushtajat (Calx) made of metals and minerals have been in use for therapeutic purpose in Unani System of Medicine since centuries. The preparation method and treatment purpose of calcined products in the system are different from Ayurveda. Three Kushtajat containing metal ions eg. Au, Ag, Cu are selected for this study. For preparation of Kushtajat samples of raw materials were procured from local market and prepared by modern and conventional methods were subjected to comparative physicochemical and gravimetric analysis to determine the metallic content and to detect the impurities. Thereafter the metals were subjected to calcination process in accordance with the procedure mentioned in National Unani Formulary for preparation of Kushita. The heat was provided by traditional furnace (Potable tandur) and by Muffle Furnace. In process heat quantification is done with the help of Digital Pyrometer. The purity of the finished product (calcined) was assessed by Thin Layer Chromatography and organoleptic characterization carried out according to the principles of Unani Medicine. They were also analyzed by Scanning Electron Microscopy, (SEM) and Transmission Electron Microscopy (TEM) ICPAES, AAS, EDAX ray methods. For Safety evaluation of Kushtta LD50 was determined in animal experimentation.

Biography
Tajuddin has completed his MD (Unani Pharmacology) in 1983 from Aligarh Muslim University Aligarh India. He has been the Dean Faculty of Unani Medicine, AMU, and presently is the Chairman Dept. of Saidla (Pharmacy). He has published more than 50 research papers in reputed journals and was the founder EDITER - IN CHIEF of International Journal Unani Medicus. He is also a member of National Pharmacoepea Committee.

drtajuddinamua@yahoo.com
Immunostimulatory effect of *Limonia acidissima* (L.) fruit supplemented feed on *Cirrhinus mrigala* (Ham.) against *Aeromonas hydrophila* MTCC 1739

Ponnuraj Srinivasan¹, Jaganathan Dineshbabu¹, Kanagarajan Manimekalai¹, Gunasekaran Guna¹, Vellingiri Mahesu¹ and J Castro²

¹Karpagam University, India
²TamilNadu Government Fisheries Development Corporation, India

Indian major carp *Cirrhinus mrigala* were subjected to feeding trials using *L. acidissima* (L) fruit for assessing the immunostimulatory effects of the tropical fruit as a feed supplement. *C. mrigala* was fed with 0% (control), 1.5% (group I), 3% (group II), and 6% (group III) *Limonia* fruit incorporated diet provided for 30 days and 60 days. Growth assessment after 30 and 60 days revealed significant (p<0.05) weight gain and Feed Conversion Ratio between control and the experimental groups. Blood samples were collected at 30 days and 60 days time interval for analyzing the non-specific (RBC, WBC count, serum lysozyme activity, serum antiprotease activity) and cellular (intracellular respiratory burst, serum myeloperoxidase activity, protein, albumin, and globulin content) immune response study. The results indicated that *L. acidissima* fruit supplemented diet significantly (p<0.001) enhanced the non-specific immune parameters at 30 and 60 days in experimental groups compared to the control diet. Among the experimental groups, significant increase in non-specific immune response was observed in group II (3%) after 30 and 60 days. Post exposure disease resistance analyses against *Aeromonas hydrophila* MTCC 1739 revealed that the Relative Percent Survival rate (RPS) observed in experimental groups were higher when compared to the control group. To our knowledge this is the first report on *L. acidissima* (L), an underutilized tropical fruit, as a dietary supplement for fish. All these experimental results elucidate that *L. acidissima* (L) fruit enhanced the immunity of fresh water fishes.

Biography

P Srinivasan has completed his Masters in Applied Microbiology by 2010 at the University of Madras, Chennai, Tamilnadu, India. He also has completed his Post graduate diploma in Molecular diagnostics by 2011 at Alagappa University, Karaikudi, Tamilnadu, India. Currently he is pursuing his PhD in Biotechnology at Karpagam University, Coimbatore, Tamilnadu, India. His area of research is on ‘Aquaculture and Molecular Immunology’ with special reference to immunostimulatory effects of medicinal plant *Limonia acidissima* (L.) fruit on fresh water fishes against *Aeromonas hydrophila*. He has actively participated and presented papers in 17 conferences and has published seven papers in peer reviewed journals.
Ancient India therapeutic burning: Agnikarma

Udaya Shankar
KVG Ayurvedic Medical College, India

Agnikarma is one of the para surgical treatment modality mentioned in Sushruta Samhita. It is an effective method of controlling pain in several diseases dominated by pain and inflammation. It is also beneficial in intervertebral disc prolapsed and other neurological conditions. There are two types of burning in Agnikarma – moist and dry, which is selected as per the pathogenesis of the disease. The theory and practice of agnikarma is gaining more popularity in the last two decades. Lot of research is undergoing in and around India on the clinical utility of this lost treasure of medical knowledge.

Biography

Udaya Shankar has completed in MD from IPGTR, Gujarat Ayurved University, Jamnagar and is involved in teaching and research in KVG Ayurvedic Medical College, Sullia for the last 2 decades. Recently conducted a workshop for the scholars of Japan School of Ayurveda, Tokyo. He has authored the text book of Shalakya Tantra, edited Netra Prakashika, from the palm leaf manuscript and guided 7 scholars for doctoral studies under Rajiv Gandhi University of Health sciences, Bengaluru. He has published more than 120 papers in reputed journals and has been serving as an editorial board member of a reputed journal.

dr.uydayashankar@gmail.com
Evaluation of ovicidal and larvicidal activities of methylene chloride-methanol extract of *Annona senegalensis* (Annonaceae) stem bark on *Heligmosomoides bakeri* (Nematoda, Heligmosomatidae)

Wabo Pone Josué
University of Dschang, Egypt

Infections of animals with gastrointestinal nematodes constitute a world wide health problem. The aim of this study was to assess the effectiveness in vitro anthelmintic of Methylene Chloride/Methanol (1:1 volume mixture) extract of *Annona senegalensis* (Annonaceae) the barks of the stem on *Heligmosomoides bakeri* eggs and larvae (for ovicidal and larvicidal activities, respectively). *Annona senegalensis* is included in the list of the plants that have anthelmintic activity in the traditional medicine, just as with other plants like *Albizia anthelmintica* (Mimosaceae), *Canthium mannii* (Rubiaceae), *Nauclea latifolia* (Rubiaceae) and *Carica papaya* (Caricaceae). The plant material was collected from the peripheral Savannas of Foumban, Noun Division, West Region of Cameroon. The final concentrations of plant extract tested were: 5 000, 3 750, 2 500, 1 250 and 625 μg/mL; 4% Tween 80 aqueous solution was used as negative control. Ovicidal and larvicidal activities were assessed thru egg embryonation and hatching rates and thru mortality rate of L1 and L2 larvae, respectively. The extract produced low but dependant concentration on egg embryonation and hatching rates. With the highest extract concentration (5 000 μg/mL) embryonnation and hatching rates of 20.8% and 16.1% were obtained respectively. On the contrary, a strong larvicidal activity was observed. L1 mortality rates of 100% and 96.7% were recorded respectively, in the two most concentrated extract (5 000 and 3 750 μg/mL) just after six hours of exposition. L2 larvae appeared more resistant as the two most concentrated extracts (5 000 and 3 750 μg/mL) produced larvicidal mortality rates of 96.1% and 90.0% respectively, just twenty four hours after the administration of the treatment. These results suggest that the extracts of *A. Senegalensis* bark stem used, possess high larvicidal properties. Further more in vivo studies to assess the effects on adult worms and toxicity on mice hosts are still needed.

Biography

Wabo Pone Josué has completed his PhD at the age of 40 years from University of Yaoundé 1, Cameroon. He is the member of staff of the Department of Animal Biology, University of Dschang, recently has been copted as an expert of International agency of atomic energy (IAEA) for a mission in Ouagadougou (Burkina Faso) on medicinal plant as anthelmintic. He has published more than 25 papers in reputed journals and has expertise many articles. I supervise 5 PhD students and more than 10 Masters Students.

waboponejosue@yahoo.fr
Plants used in folk medicine in the treatment of anaemia in the prefecture of gulf in Togo

Wouyo Atakpama, Koffi M G Amégan², Aniko Polo-Akpisso, Komlan Batawila¹ and Koffi Akpagana¹
University of Lome, Togo

A lthough it causes little interest by comparison to HIV/AIDS, anaemia is a very rife pathology in Africa. It constitutes a big problem of public health with an increase of the risk of the morbidity and mortality, especially at the pregnant women and children of preschool age. The aims of this study is to (i) identify anti-anaemia plants used in folk medicine in the Coastal region of Togo and (ii) test within plants parts of the most commonly used plant species to treat anemia, the presence of the main elements whose deficiency cause anemia. The information about the different plant species used in the treatment of anemia pathology was gathered using the semi-structured individual interviews. The sample was constituted by 54 respondents including 44 medicinal plants resellers of markets in majority women and 12 traditional healers. In order to confirm the use of these plants in folk medicine, the iron availability was assessed in plant parts of 3 most used anti-anemic plants species. A total of 35 anti-anemic plants species grouped into 24 families and 33 genera were identified. Fabaceae and Malvaceae families are the most reported. *Sorghum bicolor*, *Lannea kerstingii* and *Khaya senegalensis* are the most represented. The result revealed that these three plants contain iron in varying proportions. This would justify their uses as anti-anemia especially in case of iron deficiency anemia. The determination of iron alone is not sufficient to qualify definitely these plants as anti-anemic although they contain iron. The dosage of vitamins B9 and B12 will give a supportive confirmation. The use latest plant species in traditional medicine can be recommended only after biological, toxicological and chrono-toxicological studies on rats.

wouyoatakpama@gmail.com
Can inner peace be improved by mindfulness training: A randomized controlled trial

Xinghua Liu¹, Wei Xu¹, Yuzheng Wang¹, Yan Geng¹ Qian Zhang¹, Xin Liu¹ and J Mark G Williams²

¹Capital Medical University, China
²University of Oxford, UK

Background: Maintaining inner peacefulness is seen as very important in Buddhist theory and practice. However, whether mindfulness training, as “the heart” of Buddhist meditation, can increase inner peace has not been studied. This article reports a proof-of-principle randomized controlled trial to investigate whether mindfulness training (MT) can successfully improve inner peace in participants.

Method: 57 participants were randomized to either MT (n=29) or wait-list control (n=28). The Experience Sampling Method (ESM) was used to measure the fleeting momentary experience of inner peace. In addition, we used an experimental approach to assessing ability to focus attention: the Meditation Breath Attention Score (MBAS), as well as self-report Five-Facet Mindfulness Questionnaire (FFMQ).

Results: The measurement of inner peace had good reliability and validity. Compared to wait-list control group, MT led to increase in scores of inner peace, MBAS and FFMQ using analysis of repeated measures ANOVA. Change in inner peace were not, however, mediated by changes in self-rated mindfulness (FFMQ) nor by increased attentional focus (MBAS).

Conclusions: The findings provide first evidence suggesting that using mindfulness meditation improves inner peace. The focus here was on immediate effects and future studies need to use follow-up.

xinghua_liu@126.com

Xinghua Liu et al., Altern Integ Med 2014, 3:3
http://dx.doi.org/10.4172/2327-5162.S1.009
Traditional medicine for type 2 diabetes in Burkina Faso (West Africa): Level of use and outcomes

Yempabou Sagna
Yalgado Ouédraogo Teaching Hospital, Burkina Faso

**Aim:** We aimed to assess the level of use and outcomes of traditional medicine (plants) by type 2 diabetic patients managed in urban setting (Ouagadougou) in Burkina Faso.

**Methods:** This was a prospective and descriptive study which was conducted in the Internal Medicine department of Yalgado Ouédraogo Teaching Hospital (CHUYO) of Ouagadougou. Sociodemographic characteristics, medical history included diabetes and medication used within the last three months; and glycated haemoglobin (HbA1C) measurements of these subjects were collected during face-to-face interviews. The chi-square test was used for the comparison of proportions and the Fisher test for comparison of means. The significance level adopted was 5%.

**Results:** The survey consists of 369 type 2 diabetic patients with a mean age of 54.17±12.4 years and a sex ratio (men/women) of 0.3. 114 diabetic patients (30.9%) used traditional plants. Among them 107 used traditional plants in combination with modern oral glucose-lowering drugs and 7 exclusively used traditional plants. 77.2% of these patients resided in urban areas, and 64% were schooled. 48.2% of patients related family history of diabetes. The mean history of diabetes was less than five years in 49.2% of cases. The board of another diabetic patient (73.7%), the low cost and rural residence were significantly associated to the use of traditional medicine (p=0.03). The most commonly used plants were *Moringa oleifera* (49.1%), *Sclerocarya birrea* (17.8%), *Ziziphus mauritiana* (7.9%). Under these traditional plants, 22% had good glycemic control (HbA1C <7%), p=0.07. Glycemic control was better among users of modern medicine compared to those who used only traditional medicine (p<0.05); it's also seems to be better among those who used traditional plants in combination with modern medication.

**Conclusion:** In Africa, there is said to be one traditional healer to every 200 people; an estimated 80% of people in the continent turn to traditional medicine as a source of primary care, including those with diabetes. One third of patients with type 2 followed in urban Burkina Faso turn to traditional medicine for diabetes. However, the efficacy of these medicines on the good glycemic control is not yet proven.

**Biography**

Yempabou Sagna has completed his MD at the age of 28 years from University of Ouagadougou (Burkina Faso). He is now conducting his Postdoctoral studies in internal medicine from University of Ouagadougou and endocrinology and metabolism from University of Bamako (Mali). He has published 7 papers in reputed journals.

my_sagna@yahoo.fr
Islamic medicine aproach on coronary syndrome

Zaidul Akbar
Thibbun Nabawi Institute of Indonesia, Indonesia

Islamic Shariah such as praying, fasting, night praying and others have been known to have health effect on body, so that on several cases like coronary syndrome, those can be used for treatment of further damage of heart caused by coronary syndrome. Coronary syndrome is one of the most powerful disease that killed thousands of people all over the world. In this case applying the rule of Shariah based on Prophet Sallallahu Alaihiwasallam such as fasting, unsaturated fatty acid, Hijamah, alkalizing water such as Miracle Water Zamzam, and also applying the local traditional plant (Kunyit, Sambiloto) may help patient with heart disease avoid by pass surgery or heart catheterization. In the result, it was examined that the patient who has coronary heart disease treated with this method may have a suprising effect on the heart with decrease atherosclerosis of the Heart.

Biography
Zaidul Akbar is a Medical Doctor, Trainer, Writer, Socio Islamic Medical Activitist and also a Chief and Lecturer of Thibbun Nabawi Institute of Indonesia (INTI). He is the Chief of Indonesian Cupping Association (ABI), an organization of Hijamah in Indonesia. He has given many public presentation on Islamic medicine and also wasa Speaker in International Congres of Holistic Nursing in University of Muhammadiyah Yogyakarta (UMY) regarding Islamic medicine. He has written several books: ”Jurus Sehat Rasulullah” and ”Hidup Sehat ala Rasulullah” regarding applying Prophet ways of health in modern era.

zaidulakbar@gmail.com
Frequency and predictors of consistent condom use in HIV/AIDS patients receiving antiretroviral therapy in Western Ethiopia: Implication to reduce transmission and multiple infections of HIV

Zewdneh Shewamene
University of Gondar, Ethiopia

Background: HIV/AIDS is one of the greatest public health problems of sub-Saharan Africa countries. Consistent condom use among others remains the most effective barrier method against HIV transmission. However, frequency of consistent condom use and its determinants among people living with HIV/AIDS was not known. This scenario deserved to be investigated.

Methods: A cross sectional study was conducted through April to May, 2013 among 330 randomly selected patients who are currently taking anti-retroviral therapy (ART). Logistic regressions were performed to adjust and examine predictors of consistent condom use.

Results: A total of 330 HIV/AIDS patients who are currently receiving antiretroviral therapy participated in the study. The mean age of the study population was 31.4 (SD 10.5) years. Overall, consistent condom use was reported by 140 (88.6%) males and 110 (69.1%) females in the past six months. Multivariate analysis indicated that respondents with an advanced level of education were more likely to report regular use of condoms (OR 8.98; 95% CI 5.06-14.45) compared to those without the education. Being male, living in or around towns and taking ART for longer time were also positively associated with consistent condom use.

Conclusion: Females, patients living in rural areas, uneducated groups and new ART users were less likely to use condoms consistently. Therefore, the importance of consistent condom use should be well addressed in these segments of HIV/AIDS patients to prevent transmission and multiple infections of HIV.

Biography

Zewdneh Shewamene has completed his MSc in Pharmacology at the age of 27 years from Addis Ababa University. He is the faculty member of College of Medicine and health Sciences, University of Gondar, Ethiopia. He has published more than 5 papers in reputed journals.

zeedshow@gmail.com