

Value addition of some important herbal plants used in single and polyherbal formulations

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Man has been using plant materials for treatment of his ailments since time immemorial. These herbal drugs have stood the test of time for their safety, efficacy, cultural acceptability and lesser side effects. About 75-80% of the world population, mainly in the developing countries still use plant based medicines for primary health care. During the last decade there has been a major increase in the use of medicinal plants all over the world particular in U.S.A. and European countries.

Most of the traditional drugs used in various countries have not been evaluated scientifically and therefore documentation on their rational use is not available. During the 18th century, the active principles of a number of plant drugs were isolated and it was realized that the clinical effects of drugs such as opium, cinchona and ipecac could be attributed to the chemical compounds, morphine, quinine and emetine, respectively; hence it became possible to administer these in standardized dosage forms.

With the commercialization of herbal medicines it has become necessary to undertake systematic studies on their efficacy levels along with parameters to assess their quality. Chemical Standardization is one of the measures designed to ensure consistency in the quality and quantity of the active principle in the herbal extract/formulations. There is a strong need to adopt modern analytical methods for quality control of plant materials and herbal remedies. Simple test like foreign matter, macroscopic and microscopic studies, ash content, extractive values in different solvents, bitterness value etc can reveal lot of valuable information regarding the Quality assurance of the dosage form. By application of fingerprinting techniques using analytical methods like TLC, CC, HPLC, HPTLC, GLC; GC-MS, LC-MS etc. a high level of quality control can be achieved. These tests involve use of sophisticated equipment and need of availability of pure chemical components present in particular herbal extract/formulation.

Biography

Krishan Avtaar Suri is currently working as Head Natural Product Chemistry, at Indian Institute of Integrative Medicine (CSIR). Areas of specialization include Chemistry and processing technologies of Medicinal & Aromatic plants, Process development of Herbal formulations and Phyto-pharmaceuticals, Enrichment of a repository of plant based bioactive molecules to be used as markers for chemoprofiling and different standardization techniques. He has more than 100 publications in reputed journals.

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Evaluating insulin, leptin, adiponectin levels in high fructose-fed rats treated with some antioxidants

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The metabolic syndrome (Met) is a constellation of risk factors. The objective of this study is to compare the ameliorating effect of metformin, carnitin, lipoic acid, lipitor and orlistate on insulin, lipid profile, leptin, adiponectin levels in high fructose fed rats (HF). Seventy rats were divided into, G1: Normal control, G2:G7 rats fed HF for 8 weeks. But after the fourth week G3, G4, G5, G6 and G7 were orally administered metformin, lipitor, orlistate, lipoic acid, and or carnitin. All drugs were administered once daily. After 8 weeks of feeding, a significant increase in blood glucose level was observed in HF fed rats compared to normal, but this increase was significantly decreased after administration of metformin and lipitor. The rise of serum insulin in HF fed rats was significantly decreased after administration of lipoic, carnitin and metformin. Significantly higher concentrations of triglycerides (TG), total cholesterol & low density lipoprotein cholesterol (LDL-C) were observed in HF rats and these were lowered after the administration of drugs in question. There was a significant decrease in serum high density lipoprotein cholesterol (HDL-C) in HF group the administration of all drugs alleviates this reduction. The increase of serum leptin level in HF group was decreased significantly in metformin and orlistate groups. Whereas, the reduction of serum adiponectin level was enhanced in lipitor, carnitin and orlistate groups. This suggested the beneficial effect of metformin, lipitor, orlistate, lipoic acid carnitin in reducing risk for people with decreased insulin sensitivity as well as hyperlipidemic subjects.

Biography

Laila M. Fadda has completed his Ph.D. at the age of 35 years from Cairo University and postdoctoral studies from Minia University School of Medicine (Egypt). I was dean of faculty of pharmacy. Now I am working as a professor in King Saud University- Pharmacy collage - Pharmacology Depart- Riyadh - Saudi Arabia .I had sixty papers some of them were published in ISI journals.

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