Quality control and standardization of medicinal plants herbal medicines from field to pharmacy

Despite recent developments of antibiotics and newer synthetic drugs, a vast majority of people depend on traditional medicines for their primary health care needs and it can safely presumed that a major part of traditional therapy involves the use of plant extracts or their active principles. In the recent years with ever growing commercialization in the field of herbal medicines, there has been an instant demand for quality control of the drugs used in this system. The studies on the identity, purity and quality of the genuine drug will enhance information in checking the adulteration. A set of standards would not doubt be deterrent on substitution and adulteration and an aid for ‘Drug law Enforcement’. The present talk incorporates study from birth of the plant to its clinical application which is a dire need for all concerned to have a knowledge of GAP, GFCP, GLP, CGMP and the possible adulterations. All modern instrumentation used for quality control will be discussed with special reference to GC/MS for aromatic plants. Besides above protocols, this study deals with approaches towards establishing the safety and quality starting from preliminary examination of a medicinal plant, its morpho-anatomical, pharmacognostic, physicochemical and analytical parameters, foreign organic matter, pesticide residue, radioactive and microbial contamination, chemical assay, fingerprinting of different extractives using modern extractors, chromatographic and spectroscopic techniques, phytochemical screening, quantitative analysis of inorganic constituents and standardization with special reference to marker compounds in plant species and their fingerprinting along with its modern perspectives. Various stages, i.e. quality control studies of raw medicinal plant, controlled studies on method of processing, quality control studies of finished phytomedicines, standardization procedures at each stage from birth of the medicinal plant up to clinical application of herbal medicine have been described. An emphasis has been given on the protocols which are required for registration of phytomedicines.

Biography

Mohammad Kamil is a PhD, DSc Chartered Chemist (London), Fellow of Royal Society of Chemistry London, is Head of TCAM Research Section, Zayed Complex for Herbal Research & Traditional Medicine, Health Regulation Division, Health Authority –Abu Dhabi, UAE. He is recipient of Common Wealth Award-London; Convention Award of Chemical Society-India; Academic Exchange Fellowship from Association of Common Wealth Universities - London; and Global award on Unani Medicine and various other prestigious honors & awards. He worked as In-charge of Drug lab. of Ministry of Health, India and Professor at Jamia Hamdard University. He has published more than 350 papers and abstracts in reputed journals and international conferences; chaired a no. of international scientific sessions and presented invited talks as plenary and invited speaker at various international conferences/symposia.