Sophistication of fingerprinting methods for polyhedral traditional medicines from ‘mere quality’ to ‘quality plus composition’

Polyhedral Traditional Medicines (PTMs) are important category of traditional medicines (TMs) practiced in India. Based on therapeutic applications ancient books of Ayurveda prescribe several polyhedral combinations such as Triphala, Dashamoola etc. The composition of the formula is based on some Ayurvedic principles on properties of the individual ingredients. There are several such formulae mentioned in Ayurvedic Formulary of India (AFI) but very few having monographs on its quality standards published in Ayurvedic Pharmacopoeia of India (API). The ones with monograph in API needs sophistication of the specified standards as the data included are quite insufficient to have exact idea of its chemical composition. Also, in the present context of increasing demand for alternative therapies, standardization of herbal medicines employing more apt fingerprinting techniques are need of the hour towards globalization. In this study, an Ayurvedic PTM namely Jambupallavadi Kvatha Churna (JKC) of AFI used traditionally for chardi (emesis), pravahika (dysentery), meha (diabetes) is considered for deriving fingerprints of its standards employing the usual pharmacopoeial analytical tests in combination with certain chromatographic fingerprints which are not strict pharmacopoeial test for PTMs. Macroscopical and physicochemical constants (loss on drying at 105º, total ash, acid insoluble ash, ethanol and water soluble extractive) of ingredients (Jambupallava, Amrapallava, Usheera, Vata, Asvattha) were calculated and JKC prepared by mixing equal proportions of the five ingredients were also analyzed for the above physico-chemical constants along with HPTLC and GCMS fingerprinting along with ingredients. The combination of the results obtained by amalgamation of the currently pharmacopoeial and the non-pharmacopoeial fingerprints would serve in updating the current structure of monograph preparation of PTMs.

Biography

K N Sunil Kumar has completed his BSc, MSc and PhD in Pharmacognosy. He has worked as a Senior Research Fellow in an ICMR project ‘Quality Standards of Indian Medicinal Plants’ to work on monographs for 46 medicinal plants subsequently published by ICMR as book ‘Quality Standards of Indian Medicinal Plants’. He is a Principal Investigator of four major research projects on standardization of Ayurvedic formulations sanctioned by AYUSH, UGC, VGST and RGUHS. He is the author of 49 research papers on the theme of standardization of medicinal herbs and their products. He is serving as Chief Editor of ‘Journal of Ayurvedic and Herbal Medicine’; Associate Editor for ‘The Journal of Phytopharmacology’, Executive editor of ‘Research and reviews: Pharmacognosy and Phytochemistry’, subject expert in the specialty of Pharmacognosy for ‘AYU-An International Quarterly Journal of Research in Ayurveda’ and Editorial Member of several other journals. He is life Member of ‘Society of Pharmacognosy’ and recipient of ‘Dr. PD Sethi Award’ for 5 best HPTLC papers.

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