PROCEEDINGS

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STANDARDIZATION OF POLYHERBAL DECOCTION USED IN ALLERGIC RHINITIS

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Decoction is a liquid dosage form which used commonly in Ayurveda and Traditional medicinal system of Sri Lanka. *Tamalakyadi* decoction is a poly herbal formulation used for the treatment of allergic rhinitis, Asthma and cough conditions. Standardization and quality control are essential procedures to ensure the safety and efficacy of quality herbal preparations. Due to the absence of scientific findings on standardization of *Tamalakyadi* decoction, this study was designed to analysed standard parameters of *Tamalakyadi* decoction to confirm purity and quality. This decoction is mentioned in Sarasankshepaya and contains 12 plant ingredients. Raw materials were standardized according the World Health Organization guidelines and three batches of decoctions were prepared as per standard procedures. Prepared decoctions were evaluated for organoleptic, physico-chemical, phytochemical and chromatographic parameters. Results of the raw material standardization were comparable with the values mentioned in Ayurveda pharmacopeia of India and Sri Lanka. Values of heavy metals analysis and microbiological analysis of 12 plant materials showed that the results are within the limits according to World Health Organization guidelines. Organoleptic evaluation of the decoction revealed that it was bitter in taste, dark brown in colour and had characteristic odour. The specific gravity of the decoction found to be 1.056 for all 3 batches and mean pH was 4.6 (1% solution). TLC fingerprint profile was developed for the dichloromethane fraction of *Tamalakyadi* decoction using dichloromethane, ethyl acetate and cyclohexane in a ratio of 3:0.5:1.5 v/v. The plate was visualized under UV radiation (both 254 nm and 366 nm). HPTLC profile was observed bearing Rf values of 0.12, 0.32, 0.43, 0.59, 0.70, and 0.93 (at 245 nm). This standardization study helps to authenticate and evaluate the quality and purity of the raw materials of *Tamalakyadi* decoction and developed HPTLC fingerprint pattern and other quality parameters can be used as standard references for quality control of *Tamalakyadi* decoction.

Keywords: *Tamalakyadi* decoction, quality control, Standardization