Standardization and evaluation of new herbal immune booster drink 'Suraksha'.

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Abstract

With the onset of the COVID-19 pandemic, the use of medicinal plants for their immune-enhancing properties is becoming popular in human society. They can be used as safe and inexpensive alternatives for pharmaceuticals with uncertain side effects and the higher cost. However, evaluating and standardization of these herbal immune booster formulations is important to assess the quality, purity, safety, and effectiveness before they reach the market. Therefore, the aim of this study was to evaluate and standardize the new 'Suraksha Immunity Boosting Drink' formulated by the traditional health practitioners (THPs) from the Gunawardhana Ayurveda Holdings (Pvt) Ltd, Anuradhapura, in Sri Lanka under the brand name of 'Helayu'. Since testing of ayurvedic preparations using scientific methodologies is not well established in Sri Lanka, this study will not only analyze and identify the active properties of the ingredients present in this product but will also help to enhance its perceived value and establish its reputation as well, which is another necessary aspect for establishing consistency and credibility among the buyers. Six randomly selected samples from the 'Suraksha Immunity Boosting Drink' from six different manufacturing batches were evaluated for their pharmacognostic, physical, physicochemical, phytochemical, and toxicological parameters, as well as thin-layer chromatography (TLC) profiling and Fourier, transform infrared (FTIR) spectroscopy method using standard methodologies. This experimental work provided diagnostic characteristics to identify and standardize the formulation 'Suraksha Immunity Boosting Drink' (SIBD) prepared using its main ingredients. Based on the present investigation results, a monograph on quality standards for 'Suraksha Immunity Boosting Drink' can be proposed for its batch-to-batch consistency. This document can also be utilized for rapid authentication fingerprints of this formulation using its TLC and FTIR profiling.

Keywords: *Chromatography, FTIR, immunity boosting drink, TLC, toxicological*

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