Standardization, anti-inflammatory activity and toxicity of Siddhalepa Ayurveda Lakpeyawa Paspanguwa (SALP)

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Siddhalepa Ayurveda Lakpeyawa Paspanguwa (SALP) is being used in Sri Lanka as a popular Ayurvedic herbal remedy for the treatment of general cough, cold, fever, body pain and headache conditions. Therefore, it is significant to evaluate this herbal remedy scientifically to generate data on the standardization, efficacy and toxicity. SALP was prepared according to the procedure described in Ayurveda using five plant ingredients, namely ; *Zingiber officinale, Coriandrum sativum, Mollugo cerviana , Coscinium fenestratum* and *Piper longum*. Then this preparation was standardized by means of organoleptic properties along with determination of its physicochemical parameters (ash values, pH and moisture) and preliminary phytochemical screening. TLC analysis was carried out to investigate the marker compounds present in the SALP. Further, anti-inflammatory activity of SALP was investigated using heat induced membrane stabilization method. Toxicity of the ALP was evaluated using brine shrimp lethality assay as a preliminary toxicity study. According to results, total ash value, acid insoluble ash value, water insoluble ash value, pH and moisture content were within the acceptable limits. Heat induced membrane stabilization method of SALP showed a dose dependent anti-inflammatory activity. Interestingly, anti-inflammatory activity of SALP was similar to that of the ibuprofen at the dose level, 0.5 mg/mL. According to results of Brine shrimp lethality assay, LC_{50} of SALP was 4.929 ppm. With reference to the Meyer's toxicity index, SALP can be considered as a safe herbal remedy. These findings provide important information on efficacy and safety of SALP suggesting its safe potential use as a therapeutic herbal remedy.

Biography

C.P. Ekanayake is a Research Assistant at Hettigoda Industries (Pvt) Ltd, Sri Lanka since April, 2019. She earned her B. Sc. Special Degree in Chemistry (Hons) at University of Ruhuna, Sri Lanka and Masters by research (results pending) in Natural Product Chemistry at University of Sri Jayewardenepura, Sri Lanka. She has one research article [C.P. Ekanayake, M. G. Thammitiyagodage, S. Padumadasa, B. Seneviratne, C. Padumadasa and A. M. Abeysekera (in press) Acute and subacute toxicity studies of the ethyl acetate soluble proanthocyanidins of immature inflorescence of *Cocos nucifera* L. in Wistar rats, *Bio Med Research International*, volume 2019, Article ID 8228304] and three abstract publications from her research work.

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