

**EVALUATION OF ANTI-INFLAMMATORY POTENCY OF TWO FORMULATIONS OF  
LAGHUPANCHAMULA DECOCTION**

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*Laghupanchamula* decoction is used in Ayurveda to treat fever, asthma, skin diseases, and urinary calculi. The decoction consists roots of *Desmodium gangeticum*, *Uraria picta*, *Solanum xanthocarpum*, *Solanum indicum* and *Tribulus terrestris*. In Sri Lanka, *Alysicarpus vaginalis* (*Aswenna* in Sinhala) is often used as a substitute for *D. gangeticum* (*Shalaparni*) due to its limited availability. This study aims to compare the anti-inflammatory potency of the *Laghupanchamula* decoction prepared separately using *D. gangeticum* (LPD-1) and *A. vaginalis* (LPD-2). LPD-1 and LPD-2 were prepared according to the Ayurveda Pharmacopeia of Sri Lanka, and freeze-dried. The inhibition of protein denaturation assay and the heat-induced haemolysis assay were performed and anti-inflammatory activities were compared using a concentration series (5000.00 µg/mL to 39.06 µg/m). Diclofenac sodium was used as the standard. A one-way ANOVA test was performed to compare the anti-inflammatory potency of the standard and two decoctions. Ethical approval was obtained from the Ethics Review Committee of University of Sri Jayewardenepura. In the inhibition of protein denaturation assay, IC<sub>50</sub> values of LPD-1, LPD-2, and diclofenac sodium were 882.8, 5498.0, and 744.8 µg/mL, respectively, whereas IC<sub>50</sub> values of heat-induced haemolysis assay were 1053.0, 3904.0, and 937.2 µg/mL, respectively. LPD-1 has demonstrated higher anti-inflammatory potency than LPD-2 (P < 0.05) in both assays, and the activity was comparable to the standard. Substitution of *D. gangeticum* with the roots of *A. vaginalis* in the preparation of *Laghupanchamula* decoction, as practiced in Sri Lanka, is considered pharmacologically inappropriate. Further studies are needed to compare the efficacy of both preparations thoroughly.

**Keywords:** *Laghupanchamula* decoction, anti-inflammatory, *Desmodium gangeticum*, *Alysicarpus vaginalis*