EVALUATION OF IN VIVO ANTI-HISTAMINE ACTIVITY OF AN AYURVEDIC PREPARATION: RASNA SAPTHAKAYA IN WISTAR RATS

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The decoction Rasna Sapthakaya is a well-known Ayurvedic drug in Sri Lanka which is prescribed for the treatment of inflammatory joint diseases. Several components of this \textit{kashaya} have been individually studied. Significant anti-inflammatory and anti-nociceptive effects of Rasna Sapthakaya in Wistar rats have been shown to-date. The aim of the present study was to investigate the anti-histamine activity of Rasna Sapthakaya in Wistar rats as part of a larger research project investigating the bioactivity of Rasna Sapthakaya. The constituents of Rasna Sapthakaya are root of Alpinia calcarata (Sinhala: Araththa), stem of \textit{Tinospora cordifolia} (Sinhala: Rasakinda), bark of the root of \textit{Cassia fistula} (Sinhala: Ehala), root of \textit{Boerhavia diffusa} (Sinhala: Sarana), woody portion of \textit{Cedrus deodara} (Sinhala: Devadara), root of \textit{Ricinus communis} (Sinhala: Endaru), and the entire plant/root of \textit{Tribulus terrestris} (Sinhala: Gokatu). We used the conventional method of decoction preparation according to the Ayurvedha Pharmacopoeia (the reduction of eight volumes to one) to prepare Rasna Sapthakaya decoction for this study.

We randomly assigned eighteen healthy male Wistar rats to three groups (n = 6 each) to evaluate the anti-histamine activity of Rasna Sapthakaya. The left caudo-lateral side skin of the rats were clean-shaven. After 24 hours, animals in Group I (negative control), Group II (positive control) and Group III (experimental group) were orally treated with 2.5 ml of distilled water, chlorpheniramine (0.67 mg/kg) and freshly prepared Rasna Sapthakaya decoction (40 mg/kg), respectively. One hour after treatment, 50 µl of histamine (200 µg/ml) in normal saline was subcutaneously injected into the shaved area and the diameter of the wheal formed was measured after two minutes. The percentage inhibition (PI) was calculated and the PI of the Rasna Sapthakaya and chlorpheniramine treated groups were 54% (P<0.0001) and 51% (P<0.0003), respectively in comparison with the negative control group. The results of the present study demonstrate that the Rasna Sapthakaya decoction exerts significant anti-histamine effect in Wistar rats.

\textit{Financial assistance given by the University Grants Commission (UGC/ICD/RG02/2012/05) is acknowledged.}