PP 16

Anti-histamine activity of hot water extract of *Eclipta prostrata* (Linn.) in Wister rats

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Background: *Eclipta prostrata* (Linn.) is a small, branched annual herb which belongs to the family Asteraceae and is commonly known as 'Keekirindiya' in Sinhala and 'Karippan' in Tamil. The Hot Water Extract (HWE) of this plant is used alone or in combination with other medicinal plants as a remedy for many ailments in traditional medicine.
Objective: This study investigates the anti-histamine activity of HWE of *E. prostrata* (Linn.) in Wistar rats.
Method: Fur on posterior left lateral side of eighteen rats was shaved under anaesthesia. Twenty-four hours later, these rats were randomly divided into 3 groups (n=6/group) and were treated orally with distilled water, 0.4 mg/kg chlorpheniramine, and 400 mg/kg HWE of *E. prostrata* respectively. After one hour, histamine (50 µL of 200 µg/mL) was subcutaneously injected to the shaven area under mild anaesthesia. The area of the wheal formed was measured after two minutes. The results were analyzed using One-way ANOVA, using SPSS 25.0. The p values <0.05 were considered as significant.
Results: Mean area of wheal formation for control, test and reference groups were found to be 1.42 ± 0.06 cm^2, 0.88 ± 0.07 cm^2, and 0.61 ± 0.05 cm^2 respectively. Oral treatment with HWE of *E. prostrata* and chlorpheniramine significantly ($p<0.001$) reduced the area of wheal formed ($45.5\pm1.9\%$ and $61.2\pm4.4\%$ respectively) on the skin.
Conclusion: Experimental findings demonstrated that HWE of *E. prostrata* (Linn.) possessed an anti-histamine activity. Further studies using higher concentrations of HWE and purified constituents are needed to understand the complete profile of anti-histamine activity. Findings of these studies may contribute towards the validation of the traditional use of *E. prostrata* in the treatment of inflammatory disorders.

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