

INHIBITION OF ACUTE INFLAMMATORY RESPONSE BY DECOCTION OF OROXYLUM INDICUM (THOTILA)

Many herbal decoctions are used as therapeutic agents for arthritic conditions in the Ayurvedic system of medicine in Sri Lanka. *Oroxylum indicum* is one of the important plant ingredients in almost all these recipes. Although this plant has been used as an anti-inflammatory agent for a long time, no scientific studies have been reported to date. Hence, the objective of this study was to scientifically evaluate the anti-inflammatory effect of a decoction of Thotila in rats. The experiment was carried out using three groups (n= 6/group) of Wistar strain rats (200-250 g). The rats were orally administered a decoction of *Oroxylum indicum* 1 mL /animal (treatment), Ibuprofen 21.4 mg/animal (Reference) and 1 mL of distilled water/animal (control) one hour before induction of paw oedema. An acute inflammatory response was induced by injecting carrageenan (0.05 mL; 1% in saline) into the sub plantar area of right hind paw of each animal. Paw volumes were measured by the water displacement technique. The volume of displaced water was considered equivalent to the volume of right hind paw. The paw volume measurements were taken before and after at 1,3,4,5 and 6 hours of carrageenan injection. The swelling/oedema at each time was calculated in relation to the paw volume before injection of carrageenan.

Inhibitory activity elicited by the decoction (from bark) of *Oroxylum indicum* against carrageenan induced paw oedema (compared to control values) at 1,3,4,5 and 6 h were 56.10%, 37.30%, 66.50%, 51.20% and 63.30% ($p < 0.01$, 0.05, t-test) respectively. Decoction of Thotila bark elicited its maximum anti-inflammatory activity at 4 h after induction of inflammation while Ibuprofen too showed its maximum activity at 4 h though to a lesser degree ($p < 0.05$). Thus, the results of this study justify the use of *Oroxylum indicum* (Thotila) plant as an anti-inflammatory agent by traditional medical practitioners in Sri Lanka.