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Nitric Oxide Scavenging Activity of *Acronychia pedunculata* ("ANKENDA") Leaves

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Acronychia pedunculata ("Ankenda" in Sinhala, Family: Rutaceae) is a small evergreen tree found in Sri Lanka and the leaves, stems, roots and fruits have been used for centuries in folk medicine for the treatment of various diseases. Our previous studies have shown that 70% ethanol extract of *A. pedunculata* leaves (EEAL) has significant acute and chronic anti-inflammatory activities on *in vivo* Wistar rat models. Nitric oxide (NO) is a reactive nitrogen intermediate which plays a crucial role in both acute and chronic inflammatory processes. Hence, present study has been aimed to evaluate the nitric oxide scavenging activity of this extract *in vitro*. This was adopted in alignment of the 'reduction' principle of 3R's which would reduce the number of rats and for the future *in vivo* studies.

The NO radical scavenging activity was estimated by using Griess nitrite assay. All the tests were performed in triplicate and the effective concentration of the sample required for scavenging NO radical by 50 % (EC₅₀) was obtained by means of linear regression analysis of the dose response curve plotted between percentage inhibition vs concentration. The results have shown that EEAL reduced the formation of nitrite in a dose dependent manner where the EC₅₀ was 209.7 ± 1.2 µg / mL while it was 108.6 ± 0.6 µg / mL for quercetin which was the standard anti-oxidant.

The results of present study suggest that *A. pedunculata* leaves contain substances having nitric oxide radical scavenging activity which are comparable for that of quercetin. Further investigations are need to isolate and identify active constituents which contribute towards its ethno medically reputed anti-inflammatory effects.