

P-90**Preliminary Anti-Hypertension Studies of *Orthosiphon Stamineus* Standardised Ethanolic Extract**

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Orthosiphon stamineus Benth. (Lamiaceae) or Misai Kucing is a medicinal plant grown in Southeast Asia particularly Malaysia and Indonesia. The leaves of the plant have been used for treatment of a wide range of ailments including diabetes, hypertension, gout and cancer. This study aims to investigate the anti-hypertension effect of standardized ethanolic extract of *O. stamineus* (OS-E) using *in vitro* and *in vivo* models. The *in vitro* anti-hypertensive effect was determined based on inhibitory effect on angiotensin converting enzyme (ACE) activity as a marker for anti-hypertension. However, the *in vivo* antihypertensive effect was investigated after oral administration of the extract on spontaneous hypertensive rats (SHR). The systolic blood pressure was measured before and after 14-days treatment by the tail cuff method. Ethanolic extract of *O. stamineus* was standardized based on the primary and secondary metabolites using HPLC, FT-IR, UV-VIS and gravimetric methods. *In vitro* testing showed modest inhibition of the ACE activity by 22.1%, and the *in vivo* results in SHR rats showed significant reduction in the systolic blood pressure in 4 out of 6 treated rats after treatment period for 14 days. In conclusion, our preliminary results show blood pressure lowering effect of the OS-E extract which needs further investigation to explore the extract's mechanism of action.

Keyword: *Orthosiphon stamineus*, ethanol standardized extract, Anti-hypertension *in vitro*, *in vivo*.
