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## **Efficacy of Extractions of Iranian Native Plants against Main Malaria Vector, *Anopheles stephensi* in Iran for Making Appropriate Formulation for Disease Control**

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**Background:** Malaria is the main vector-borne disease worldwide. There are several reports of insecticide resistant in malaria vectors worldwide due to using different insecticides. The aim of this study was to evaluate different native plant extortions against main malaria vector, *Anopheles stephensi* in Iran for choosing the appropriate plant for formulation and use for vector control.

**Methods:** The larvae of *An. stephensi* were reared in insectary, extraction of plants were carried out at department of Pharmacology. The standard WHO method for biological tests was used for calculation of LC<sub>50</sub> and LC<sub>90</sub>. Probit regression lines were plotted for calculation of LC<sub>50</sub> and LC<sub>90</sub>.

**Results:** In this study several plants including: *Mentha spicata*, *Cymbopogon olivieri*, *Azadirachta indica*, *Melia azeda-rach*, *Lagetes minuta*, *Calotropis procera*, *Eucalyptus camaldulensis*, *Cupressus arizonica*, *Thymus vulgaris*, *Lawsonia inermis*, *Cedrus deodara*, *Cionura erecta*, *Bunium persicum*, *Carum carvi*, *Artemisia dracunculus*, *Rosmarinus offici-nalis* were used. Results showed that *Mentha spicata* and *Eucalyptus camaldulensis*, had the lowest and highest LC<sub>50</sub> respectively.

**Conclusion:** Results indicated that *Mentha spicata* and *Eucalyptus camaldulensis*, had the lowest and highest LC<sub>50</sub> respectively. Several other plant extract also showed significant mortality. The formulation of these plants should be pre-pared and evaluate at the field condition against malaria vectors.

**Keywords:** Plants; Malaria vector; Pesticide; Iran