**Abstract**

Objective To evaluate the ovicidal and oviposition deterrent potential of the ethanolic extract from Vetiveria zizanioides (V. zizanioides) roots against the malarial vector, Anopheles stephensi (A. stephensi).Methods The dried clean V. zizanioides roots were powerdered and extracted with ethanol for 8 h in a soxhlet apparatus. After evaporation, the residue was dissolved in acetone. One hundred freshly laid eggs of A. stephensi were exposed to the extract at differnt concentrations for 48 h, and the hatch rate was calculated to evaluate the ovicidal activity. Those exposed to actone aqueous solution were used as control. The egg laying behavior of gravid female A. stephensi was also observed using oviposition deterrent test. Effective repellency (ER) was used to evaluate the oviposition deterrent activity. Results Exposure to the crude ethanol extract of V. zizanioides reduced the hatchability rate of A. stephensi eggs, and zero hatchability was exerted at 375 ppm. In the oviposition deterrent test, the extract alleviated the egg laying with an ER of 78.9% at the highest concentration of 375 ppm and even 53.7% at the lowest concentration of 125 ppm. Moreover, the negative values of oviposition active index also suggests the extract was a good deterrent agent. Conclusions The ethanolic extract of V. zizanioides roots may be used an alternative pesticide to control A. stephensi at the early stage of life history, possibly due to the presence of various active chemical compounds.