113/A

Determination of current peak biting periods of dengue vector mosquitoes in different localities in the district of Hambantota

B S L Peiris
Anti Malaria Campaign, Hambantota

As no vaccine is available yet for the prevention of dengue and no specific drug treatment is available for dengue patients, control of dengue fever and hemorrhagic fever still primarily depend on the control of dengue vector. Three localities from which dengue cases were reported (Bintenna of Katuwana Medical Officer of Health (MOH) area, Kendagasmankada of Lunugamvehera MOH area & Town area of Tangalle MOH area) were selected for this study. The survey was commenced at 5.00 a.m. and concluded at 6.00 p.m. The human bait was laid on a folding bed and covered with a rectangular single mosquito net. This single net was covered with a larger rectangular outer net, with a space between the two nets enabling a mosquito collector to walk around the human bait. Trapped mosquitoes in both indoor and outdoor traps were collected hourly and morphologically identified. In addition, ambient temperature, relative humidity and intensity of the sunlight were noted hourly.

For *Ae.albopictus,* a small outdoor biting peak in the morning and a large evening outdoor biting peak were observed in Katuwana and Lunugamvehera. No indoor biting could be observed except during the 10-11 and 11-12 hours in Lunugamvehera. According to literature, peak biting periods of *Aedes* are found soon after sunrise and before sunset. Lunugamvehera is located in the Eastern part of Hambantota district, whereas Katuwana is located in the Western part of Hambantota district bordering the district of Matara. Owing to this difference, there may be small changes in the time of sunrise and sunset. In addition, Lunugamvehera is relatively dry and experiences low rains while Katuwana is relatively wet and experiences more rains. Due to the effect of these factors in different localities, the peak biting period of *Aedes* may vary slightly from locality to locality. The reason for the current negative result in Tangalle might be an error in the selection of a relatively unsuitable site. The closest house to the highly positive ovitrap is the ideal place for a biting survey. However, inmates in Tangalle objected to conducting of the survey in the selected premises. The space spray application time of a particular area, should be based on the results of the survey of peak biting period of the dengue vector mosquitoes. For a better transmission blocking of the dengue virus, effective space spraying is very important. Therefore, it is important to conduct surveys in the dengue control programme to find out the peak biting periods of dengue vectors in different localities.

lalanthikaperis@yahoo.com