Study of the mosquito repellent effect of the microencapsulated DEET-preparation MK 19 - An orientation.

The study was performed on the mosquito Aedes Aegypti, strain Senemanga.

About 30 female mosquitoes, starved for 2 to 3 days, were kept in a net cage.

The test person cleaned the hand with 70% ethanol w/w. After airdrying the hands of the test person were covered with special gloves with a dorsal quadratic opening of 45 cm^2.

The free surface of one hand was treated with 0.5 ml of the test suspension corresponding to 0.01 ml/cm^2. The free surface of the other hand served as a control.

After airdrying the test hand was introduced into the mosquito cage after 0, 4, 6 and 8 hrs. At each occasion the mosquitoes were adapted for one minute without allowing any bloodsucking. During the following minute the number of sucking mosquitoes was counted, (t). Corresponding number of bloodsucking mosquitoes on the control hand was noted at 8 hrs, (c). The repellent effect was expressed as 100(1-t/c)%.

The results showed that no mosquitoes were sucking blood on the test hand at 0, 4, 6 and 8 hrs, whereas the control hand at 8 hrs was attacked by 12 bloodsucking mosquitoes.

This corresponds to a repellent effect of 100% of MK 19 against the yellow fever mosquito, Aedes Aegypti, for at least 8 hrs.

Stockholm 04 09 27

Walborg Thorsell

Walborg Thorsell,
Docent in Experimental Parasitology