

Mosquito repellent test with microencapsulated Icaridin 20% impregnated cotton cloth

An orientation - Study performed on the mosquito *Aedes Aegypti* strain Senemaganga

About 40 female mosquitoes, starved for 2 or 3 days, were kept in a net cage.

The test person cleaned the hands with 70% ethanol w/w. After airdrying, the hands were covered with special surgical gloves, with a dorsal opening of 49 cm². The free surface of one glove was covered with a piece of white cotton cloth, 49 cm², with the aid of surgical tape. This glove served as a control, (c). The other glove had the dorsal opening covered with a piece of white cotton cloth, 49 cm², treated with 0,25 ml microencapsulated Icaridin 20% (5ul/cm²). This glove served as the test glove, (t), after air drying.

The test person with the test glove introduced the hand into the mosquito cage for 5 minutes adaption without allowing any blood sucking, followed by 5 minutes mosquito exposure.

The number of bloodsucking mosquitoes was counted, (t). The same procedure was used with the control, (c).

The repellent effect was expressed as $100(1-t/c)\%$, where t is the number of bloodsucking mosquitoes in the test, and c is the number of bloodsucking mosquitoes in the control.

The tests were performed at 0, 2, 3, 4, 5 and 6 days, at the dose of 5ul/cm², and it showed 100% protection. The results showed that the first mosquito, which tried to suck blood on the test hand appeared after 6 days, where as the control hand at each occasion showed 10 ± 4 bloodsucking mosquitoes.

Summary

The microencapsulated Icaridin 20% treated white cotton cloth protected from bloodsucking *Aedis Aegypti* for at least 6 days, at the dose of 5ul/cm².

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