

Stability of Mosquito Venom *in vitro*.

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In 1929 the senior author¹ extracted a toxic substance from macerated salivary glands of the yellow fever mosquito, *Aedes aegypti* Linnaeus. At the close of the experiments which were conducted then, a few milliliters of the venom extract remained. This aliquot was passed through a bacterial filter, and a very small amount sealed in glass, and stored in a refrigerator.

On October 14, 1937, the tube was removed from storage. Inspection showed that the filtrate had remained water-clear with no evidence of a precipitate. The glass seal was broken and 0.1 cc of the contents was injected, intradermally, over the biceps muscle of each of 3 persons. Each injection of the salivary gland extract immediately was followed by a control injection of 0.1 cc of sterile saline over the same muscle on the same arm. The pertinent histories and reactions of the subjects are as follows:

Subject No. 1. E.B.M. always had been sensitive to the bite of *Aedes aegypti*. He participated in the experiments of 1929 and showed a strong reaction to the freshly prepared venom extract. Eight-year-old salivary gland extract produced an urticating wheal that persisted. It very closely paralleled the reaction described in 1929 for the same person.¹

Subject No. 2. Mr. P., who had worked during the previous summer on a mosquito survey project in the Tennessee Valley, supposedly had acquired some immunity. He showed a mild reaction to the test injection, which disappeared completely within 45 minutes.

Subject No. 3. F.C.B. frequently had allowed colonies of *Aedes aegypti* and very closely related species to feed upon his person. Most of this mosquito feeding took place during the years from 1933 to 1936. The feeding of *A. aegypti* upon his arm produced no reaction. The bleb caused by the injection of this 8-year-old venom extract disappeared just as rapidly as did that of the saline control. Although the subject was carefully observed for a possible delayed reaction, none was detected.

Therefore, it would seem that, after 8 years of storage, this salivary extract from *Aedes aegypti* still retained toxicity for those who react to the fresh toxic substance of the yellow fever mosquito.

¹ McKinley, E. B., PROC. SOC. EXP. BIOL. AND MED., 1929, 26, 806.