

Ching—choks and Arbovirus Studies

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**OBJECTIVE:** To study the role of the small house lizard Platyurus platyurus (ching—chok) as a host for dengue and Japanese encephalitis viruses.

**Experiment #1.** Study for the presence of arbovirus antibodies in ching—chok sera.

**DESCRIPTION:** In a preliminary experiment, 4 out of 10 ching—chok sera collected around one house in Bangkok were HI positive to Dengue 2 antigen, but negative to the three other dengue virus types, JEV and chikungunya virus antigens by micro—titer HI test. In this study, 35 ching—chok sera were collected from Thonburi area and micro—titer HI tests were performed against dengue serotypes 1—4, JEV, and chikungunya viruses.

**PROGRESS:** The amount of blood collected from a decapitated lizard was usually less than 0.1 ml/ching—chok. None of the 35 sera tested contained HI antibodies to the six antigens used. It is possible that the positive Dengue 2 HI tests on 4 ching—choks previously noted were false positive reactions caused by non—specific viral HA inhibitors in the serum. Viral—neutralization tests were not performed on these 35 sera. Sera from 25 of these wild—caught ching—choks were tested for dengue viremia using direct and delayed plaque method, with no virus isolated.

**Experiment #2.** Attempts to infect ching—choks with Dengue 2 NGC using various routes of inoculation.

**PROGRESS:** Three groups of 3 ching—choks each were inoculated with  $1 \times 10^3$  PFU of Dengue 2 NGC strain by the intracerebral, intraperitoneal, and subcutaneous routes respectively. These 9 inoculated ching—choks were kept for 14 days and then were tested for the presence of virus by direct and delayed plaque technique in MK2 cell cultures, they were also tested for the presence of HI antibody to Dengue 2.

**RESULTS:** The results are shown in the following table.

<u>Route of Inoculation</u>	<u>No. of Ching—choks</u>	<u>Dengue 2 HI Antibody<sup>(a)</sup></u>	<u>Virus Isolation</u>
1. I.C.	3	0/3 <sup>(b)</sup>	0/3 <sup>(b)</sup>
2. I.P.	3	0/3	0/3
3. S.Q.	3	0/3	0/3

(a) Measured 14 days after virus inoculation. Positive titer  $\leq 1:20$ .

(b) no. positive/no. tested.

We conclude that Platyurus platyurus inoculated by I.C., I.P., and S.Q. routes were not infected with a Dangu 2 virus strain.

**Experiment #3:** The Infectivity of JEV for ching—choks.

**OBJECTIVE:** To determine whether viremia occurs in ching—choks which feed on JEV infected Culex tritaeniorhynchus mosquitoes.

**PROGRESS:** Nine ching—choks were housed with mosquitoes that were presumably infected by feeding on JE viremic chicks 7 days before. The ching—choks ate all the mosquitoes within 1 hour. Blood from these ching—choks was tested for the presence of JEV from day 4 thru day 14 after feeding. Virus was not recovered from the blood of the nine ching—choks.