

Isolation of St. Louis Encephalitis virus from arthropods in Pará, Brazil*

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St. Louis Encephalitis virus antibodies were found in sera collected in 1953 from residents of the Amazon valley in Brazil. There were 19 positives (5.5%) by neutralization testing on the 344 sera studied¹. Interpretation of these results was difficult owing to the immunological overlap between members of group B of the arthropod-borne viruses (arboviroses). A search for St. Louis Encephalitis virus and other arboviroses was begun at the Belém Virus Laboratory in 1954.

Persons with fever of unknown origin were sought out and bled for mouse inoculation. Sentinel monkeys and mice were stationed in the forests for the detection of virus infections. Mosquitoes and other arthropods were captured, identified, triturated in bovine albumin phosphate with antibiotics and centrifuged, and the supernatant fluids were inoculated intracerebrally into baby mice. Wild animals, birds and reptiles were captured and sacrificed, and sera and viscera were used for mouse inoculation². Serological identification was by methods described elsewhere³.

Using these procedures, more than 2,750 strains constituting 47 different sero-types of arboviruses have been isolated. Among these were two identical isolates from arthropods. One, AR 23379, was obtained in mid-September, 1960, from 35 *Sabethes belisarioi* collected on human bait at the Belém-Brasilia highway

* Publicado originalmente em *American Journal of Tropical Medicine and Hygiene*, Baltimore, v. 13, n. 3, p. 449, May, 1964.

station km 94. The other, AR 24599, was obtained in late October from *Gigantolaelaps* sp. combed from *Oryzomys macconnelli* which had been captured at km 94.

Virus AR 23379 was shown to belong to group B of the arboviruses by means of complement-fixation and hemagglutination-inhibition testing. It was also shown to differ from Yellow fever, Ilhéus and Bussuquara, the group B viruses already known to exist in Brazil. In complement-fixation testing, virus AR 24599 cross-reacted to titer with AR 23379. Further serological studies, including neutralization testing, at the Rockefeller Foundation Virus Laboratories in New York revealed that AR 23379 was indistinguishable from the Parton strain of St. Louis Encephalitis virus.

SUMMARY

Two isolations of St. Louis Encephalitis virus are reported from arthropods collected in Pará, Brazil. The first isolate, AR 23379, was obtained from a pool of 35 *Sabethes belisarioi*; the 2nd, AR 24599, from a pool of 12 *Gigantolaelaps* sp. combed from *Oryzomys macconnelli*.

REFERENCES

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