

REPORT FROM THE INSTITUTO EVANDRO CHAGAS, FSESP
Brazilian Ministry of Health, Belém, Brazil
OROPOUCHE VIRUS OUTBREAKS IN MARANHÃO AND GOIÁS STATES, BRAZIL

During the month of december 1987, the IEC was advised of an outbreak of human febrile illness in Porto Franco, a small county located in south of Maranhão state. A field team moved to the area at the end january 1988 where they collected blood from humans and, insects with the purpose of establishing its virological and entomological characteristics. The population in the area was said to be around 20,000 people, most of them living in Porto Franco, and the rest in nearby smaller settlements.

Human studies - Main symptoms observed were fever, headache, myalgias, joints and back pains, photophobia, retrobulbar pain, nausea and dizziness. Sudden onset was commonly observed and in many patients there was a recurrence of symptoms a few days or more than one week after the first episode 22 strains of Oropouche(ORO) virus were obtained from the intracerebral inoculation of the blood of 75 febrile patients into 2-3 day-old infant mice. Of 197 people examined 125 had hemagglutination - inhibiting(HI) antibodies to the agent while 106 of them had IgM antibodies by MAC ELISA test. All age groups were infected and there was no difference, in relation to sex.

Entomological studies - 5,940 females of blood-sucking diptera were collected and 5,936 were inoculated into baby mice as 137 pools for virus isolation attempts. Over 60% of the insects belonged to the family Ceratopogonidae, as shown in table 1. One single isolation of Oropouche virus was obtained from a pool of 53 Culicoides paraensis.

In that opportunity, ten strains of ORO virus were also obtained from 45 samples of human blood received from Tocantinópolis, Goiás state. By serology, HI and MAC ELISA, seven other sera were positive for the agent on study.

These are the first confirmed cases of ORO infection in Maranhão and Goiás states, Brazil.

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Table 1 - Females of blood-sucking diptera collected in Porto Franco, MA, Brazil.

Species	Collected	Inoculated	Pools
CULICIDAE			
Anophelinae			
<u>Anopheles (Anopheles) species</u>	1	0	0
<u>An. (Nyssorhynchus) nuneztovari</u>	20	20	1
<u>An. (Nys.) triannulatus</u>	7	7	1
Culicinae			
Aedini			
<u>Aedes (Ochlerotatus) scapularis</u>	1	1	1
<u>Psorophora (Grabhamia) cingulata</u> + <u>Ps. albipes</u>	6	6	1
<u>Ps. (Janthinosoma) ferox</u>	4	4	1
Culicini			
<u>Culex species</u>	15	15	1
<u>Cx. (Carrollia) species</u>	1	1	1
<u>Cx. (Culex) corniger</u>	51	51	1
<u>Cx. (Cux.) coronator</u>	6	6	1
<u>Cx. (Cux.) coronator</u> + <u>Cx. (Mel.) species</u>	4	4	1
<u>Cx. (Cux.) declarator</u>	132	132	3
<u>Cx. (Cux.) quinquefasciatus</u>	1.970	1.970	79
Mansoniini			
<u>Cq. (Rhy.) species</u> + <u>Ma. (Man.) titillans</u>	7	7	1
Sabethini			
<u>Limatus species</u>	12	12	1
<u>Sabethes (Sabethoides) glaucodaemon</u>	1	1	1
<u>Wyeomyia species</u>	9	8	1
Uranotaeniini			
<u>Uranotaenia species</u>	6	6	1
	<u>2.253</u>	<u>2.251</u>	<u>97</u>
CERATOPOGONIDAE			
<u>Culicoides (Oecacta) paraensis</u>	3.624	3.624	39
<u>Ceratopogonidae species Nr 1</u>	1	0	0
<u>Ceratopogonidae species Nr 2</u>	1	0	0
	<u>3.626</u>	<u>3.624</u>	<u>39</u>
SIMULIIDAE			
<u>Simulium species</u>	<u>61</u>	<u>61</u>	<u>1</u>
GRAND TOTAL	5.940	5.936	137



ARTHROPOD-BORNE VIRUS INFORMATION EXCHANGE

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TABLE OF CONTENTS

	Page
Editor's Comments	i
Purpose of Arbovirus Information Exchange	ii
Guidelines for submitting reports	ii
Letter from W. C. Reeves	iii
A suggested experiment (PA Nuttall, LD Jones, CR Davies)	1
DENGUE	
Monoclonal antibodies which recognize dengue virus complex (C Hermida, CE Sosa, Vazquez, M Gonzalez, R Marcet, M Pupo, MG Guzman)	2
Retrospective seroepidemiological survey to dengue virus in "Guantanamo Municipality". Preliminary results. (M Soler, MG Guzman, G Kouri, L Morier, J Bravo, C Garbey)	4
Dengue hemorrhagic fever/dengue shock syndrome in infants, Cuba 1981. (MG Guzman, G Kouri, M Valdéz, E Martinez, M Soler)	8

(Continued on
next page)

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