

# **Epidemiological Alert:**

## Outbreak of Mayaro Fever in the Americas

(7 June 2010)

In the Americas, a few minor outbreaks of Mayaro fever have been reported over the past decade among people residing in rural communities in the Amazon region of Brazil, Bolivia, and Peru. Studies conducted on these outbreaks show involvement of the mosquito vector *Haemagogus* in its jungle habitat. Marmosets are considered to act as vertebrate hosts among other nonhuman primates. Most human cases occur sporadically and include people who work or live in tropical rainforests.

### **Current Situation**

The Mayaro virus has been isolated in humans, wild vertebrates and mosquitoes in Bolivia, Brazil, Colombia, Guyana, French Guiana, Peru, and Suriname. Mayaro fever is a viral disease of the South American countries.

This year, Venezuela reported an outbreak in a rural community located in Portuguesa state, which by 4 June 2010 had reported a cumulative total of 77 cases. No deaths were reported. The cases were confirmed by serology and viral isolation. The first outbreak of human cases in this country was reported in 2000.

#### Mayaro Fever

L Mayaro fever (ICD-10 A92.8) is a zoonosis caused by a arborvirus of the Alphavirus genus, Togavirus family, which is endemic in tropical rainforests of South America, transmitted by the mosquito *Haemagogus*. Human cases are associated with recent exposure to damp forests inhabited by these vectors.

The disease is similar to dengue, with a rapid onset of fever, aches, headache, retroorbital pain, dizziness, arthralgia, and generalized and often debilitating joint swelling. The disease follows a self-limiting course of, three to five days and is non-lethal; however, arthralgia may last for weeks or months.

# Factors Influencing Incidence That Could Determine a Rise in the Number of Cases

- Changes in ecosystems and deforestation.
- Displacement of populations and encroachment of humans and domestic animals in arthropod habitats.

## **General Recommendations**

- Displacement of populations.
- Enhanced surveillance to detect new cases and direct prevention and control activities.
- Outbreak investigation to adequately define existing prevention and control activities.
- Strengthening laboratory capacity for confirming diagnoses.
- Training health personnel in detection and case management.
- Strengthening entomological surveillance to determine the vectors involved in transmission.
- Dissemination of information and recommendations to alert the population at risk.

### **Bibliographical References**

- 1. *Epidemiological Alert* No. 132, Network of Scientific Medical Societies of Venezuela. Mayaro fever outbreak: emerging viral disease in Venezuela. June 3, 2010.
- 2. Bolivarian Government of Venezuela. Ministry of Popular Power for Health. *Notification of Events /* Portuguese / Mayaro Fever / CIE 10 A-92.8.
- 3. Jaime R. Torres, Kevin L. Russell, Clovis Vasquez, Roberto Barrera, Robert B. Tesh, Rosalba Salas, and M. Douglas Watts. *Family Cluster of Mayaro Fever, Venezuela.*
- Raimunda S.S. Azevedo, Eliana V.P. Silva, Valéria L. Carvalho, Sueli G. Rodrigues, Joaquim P. Nunes Neto, Hamilton A.O. Monteiro, Victor S. Peixoto, Jannifer O. Chiang, Márcio R.T. Nunes, and Peter F.C. Vasconcelos. *Mayaro Fever Virus, Brazilian Amazon.*
- 5. Robert B. Tesh, Douglas M. Watts, Kevin L. Russell et al. Mayaro Virus Disease: An Emerging Mosquito-Borne Zoonosis in Tropical South America. *JSTOR: Clinical Infectious Diseases*, Vol 28, No. 1 (Jan. 1999), pp. 67-73
- 6. Taylor, Shawn F. MD, Patel, Paresh R. MD; Herold, Thomas J.S. MD. Recurrent arthralgia in a Patient with Previous Mayaro Fever Infection. *Southern Medical Journal*. 2005.