

CONCOMITANT INFECTIONS BY MALARIA AND ARBOVIRUSES IN THE BRAZILIAN AMAZON REGION.

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The authors describe six cases, in which infections of arboviruses and malaria were observed in the same patient and at the same time, in the Amazon region of Brazil. The arboviruses isolated are included in family Bunyaviridae, genus *Bunyavirus*. *Plasmodium falciparum* (diagnosed by thick and thin smears) was associated with the following arboviruses: Guaroa (California serogroup) 3 times; Tacaiuma (*Anopheles A* serogroup) twice; Catu (Guama serogroup) once. The latter was also infected by *P. vivax*.

Five patients were male and one female. All were seventeen years old or more. None were born in Pará State, although all were living there. The female was a domestic help, while four men were agricultural workers and one was a commercial traveller.

The main clinical history of disease was fever with headache, chills, myalgia and arthralgia. Sometimes we noted abdominal pain, nausea, vomiting and dizziness. Jaundice was recorded in two cases of *P. falciparum* in association with Tacaiuma. The typical periodic fever associated with malaria was not observed. It was continuous. Patients were treated by SUCAM with chloroquine, primaquine, quinine, or other drugs when necessary. Five recovered quickly, but one died.

These cases are important because in Amazonia thousands of people are diagnosed and treated for malaria. About 10% of the strains of *P. falciparum* are considered to be drug resistant. The possibility (probably much underestimated) of concomitant infections with arboviruses may obscure the effectiveness of the treatment, or may lead to an erroneous diagnosis.

It is supposed that the joint infections with malaria and Guaroa or Tacaiuma viruses were due to the fact that in Amazonia, mosquito vectors may be in either cases *Anopheles nuneztovari* or *An. triannulatus*.



ARTHOPOD-BORNE VIRUS INFORMATION EXCHANGE

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