

AN OUTBREAK OF DENGUE VIRUS AT RIO DE JANEIRO – 1986

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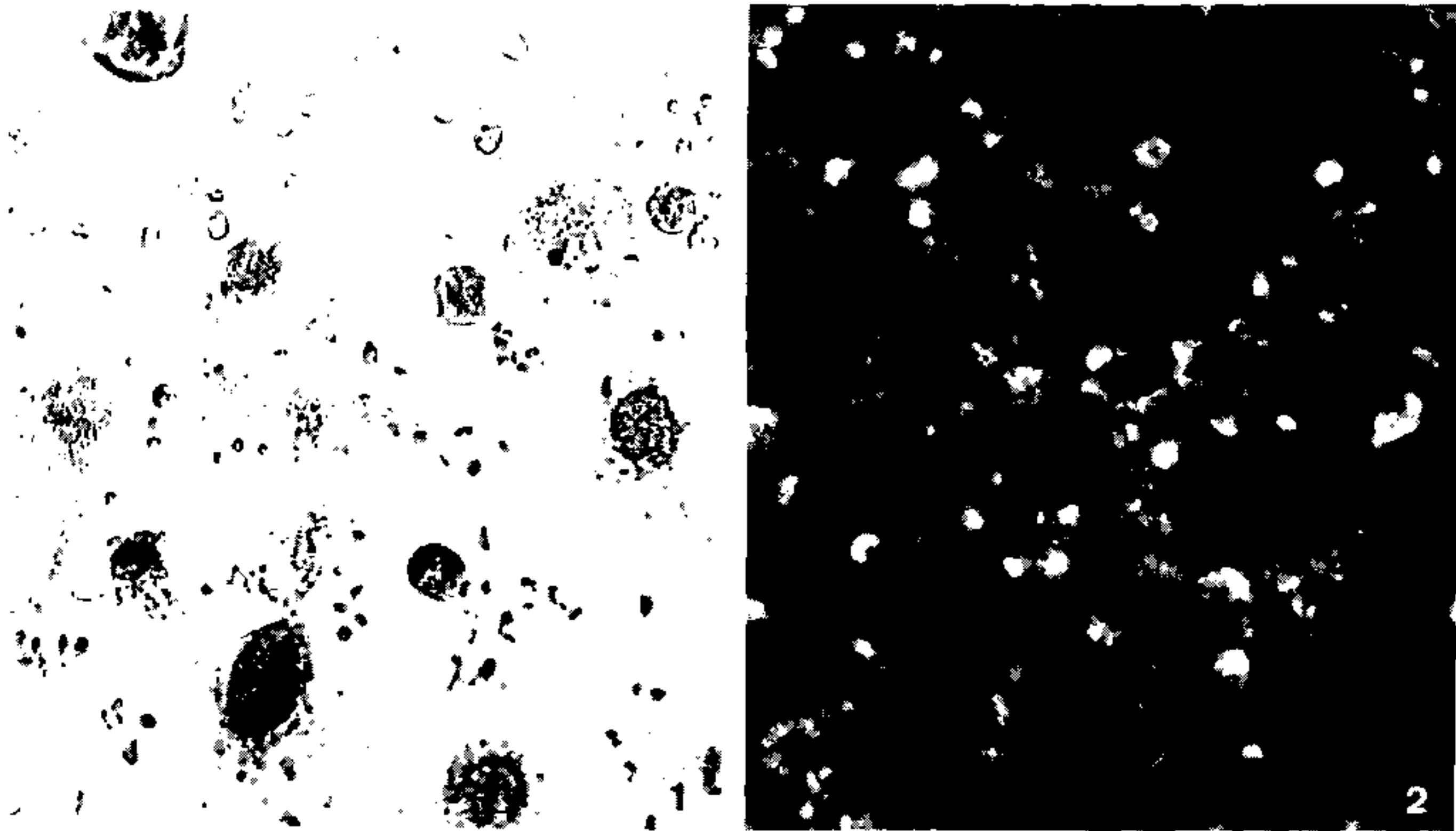
Dengue virus type 1 has been isolated in Aedes albopictus cell strain, from sera of patients living in the Nova Iguaçu county, by Rio de Janeiro. The clinical picture was characterized by fever, headache, retrobulbar pain, backache, pains in the muscles and the joints and prostration. Studies in paired sera confirmed the presence of recent infection by dengue virus type 1.

The outbreak reached adjacent areas, including Rio de Janeiro city (May, 1986).

Key words: dengue virus dengue outbreak

In a suburb of Rio de Janeiro city (Nova Iguaçu county) about 25 km away from downtown, starting by March 1986, cases of a acute disease were recorded, characterized by fever, headache, retrobulbar pain, backache and pains in the muscles and the joints. It was also observed marked weakness and prostration. The skin rash, when present, was scarlatiniform or even petechial in character; epistaxis, intestinal bleeding and gum hemorrhages have been described in a very few cases. No fatal outcomes were reported and the clinical disease lasts for about one week in most patients.

Since *Aedes aegypti* was present in the area after its reintroduction, about ten years ago and no virus could be isolated from fecal and oral specimens from the patients, acute sera have been obtained and inoculated on cell cultures of *A. albopictus*, clone C6/36. Dengue virus was isolated, showing effect on the cells, after one week incubation at 28°C (Fig. 1) and typed by immunofluorescence using monoclonal antibodies (Fig. 2), obtained from the Dengue Branch, Center for Infectious Diseases, San Juan/Puerto Rico. Our findings have been confirmed by this Laboratory, which also isolated dengue virus type 1, from sera specimens obtained from patients of the outbreak. A virus isolation rate of 80%, from acute sera specimens, has been observed.



Dengue virus type 1 in *Aedes albopictus* cells, clone C6/36. Fig. 1: formation of numerous syncytia. Fig. 2: typing by use of monoclonal antibodies in indirect immunofluorescence test.

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Serological studies in paired sera from clinical cases, were carried out at Instituto Evandro Chagas, Belém and has showed in most of the cases, a clear-cut seroconversion for dengue type 1; a low level of antibodies for flavivirus, in the acute sera, showing low circulation of the group in the region, confirming early results (Pinheiro et al., 1975), has been also observed.

The epidemic is still on going and spread to surrounding areas, including parts of Rio de Janeiro city. A preliminary estimate of more than 100.000 clinical cases has been made, but the epidemiological data are fragmentary, at this moment (May, 1986). All ages have been affected, confirming the absence of dengue infections in the area, in the last decades.

These have been the first confirmed cases of dengue infection at the Rio de Janeiro area, since the last outbreak, described on clinical grounds in 1923 (Antonio Pedro, 1923). In the country, the last outbreak of dengue was observed at the Amazon area in 1981, (Roraima Territory) in the city of Boa Vista, where 7,000 cases were estimated and dengue types 1 and 4 have been isolated (Osanai et al., 1983).

Epidemiological and clinical studies are on going and shall be later reported.

RESUMO

Vírus dengue tipo 1 foi isolado em cultura de células de *Aedes albopictus*, do soro de pacientes oriundos do município de Nova Iguaçu, RJ. O quadro clínico caracterizou-se por febre, cefaléia, dor retro-orbitária, mialgias, dores articulares e prostração. A análise de soros pareados confirmou a presença de infecção recente por dengue tipo 1.

A epidemia expandiu-se para áreas próximas, inclusive a cidade do Rio de Janeiro (maio, 1986).

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