

## AAN 68<sup>th</sup> ANNUAL MEETING ABSTRACT

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**Abstract Title:** Neurologic Manifestations of Arboviruses in the Epidemic in Pernambuco, Brazil

**Press Release Title:** Zika Virus May Now Be Tied to Another Brain Disease

**Objective:** To describe neurological manifestations of confirmed Zika virus infection.

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**Background:** The arboviruses of the Flaviviridae family, Flavivirus genus, and Togaviridae family, are group IV RNA viruses, such as dengue, Zika and chikungunya. They are a public health problem in Brazil due to increased proliferation of vector<sup>4</sup>, and in Pernambuco because they have shown unusual neurological manifestations. The literature on neurological disorders related to arboviruses reports myelitis, encephalitis, meningoencephalitis, encephalopathy, Guillain-Barré syndrome, and optic neuritis, among others with low frequency.

**Design/Methods:** We present a cohort with follow-up from December 2014 to June 2015, including six patients seen at the Emergency Room and Neurology Outpatient Department at Hospital da Restauração, Pernambuco, Brazil. Their clinical complaints, compatible with arboviruses, evolved to neurologic symptoms and signs attributable to autoimmune diseases. All patients underwent clinical and neurologic examination, laboratory tests, as well as PCR-RT viral genome detection, and some patients had MRI scans.

**Results:** The symptom presentation was fever followed by cutaneous rash. Some patients had also pruritus, myalgia, arthralgia and conjunctival hyperemia. Neurologic manifestations appeared from zero to 15 days after first clinical symptoms. There were MRI white matter lesions in two acute disseminated encephalomyelitis cases and elevated protein concentration with normal cell count in four Guillain-Barré syndrome cases. Blood and CFS molecular tests for arboviruses were positive only for Zika virus. After hospital discharge, five patients had sustained motor dysfunction, one patient had low visual acuity and another had cognitive decline.

**Conclusion:** There is strong evidence that this epidemic has different neurological manifestations than those referred to in the literature.