Outbreak of Neuro-Chikungunya in Northeastern Brazil

Hugo André de Lima Martins[1*], Silvya Nery Bernardino[1], Ketlin Helenise Ribas[1], Camila Cordeiro dos Santos[1], Taciana Antunes[2], Valdenilson Ribeiro Ribas[1] and Marcelo Moraes Valença[1]

[1]Department of Post-Graduation in Neuropsychiatry and Behavioral Sciences, Federal University of Pernambuco, Brazil

[2]Getulio Vargas Hospital, Brazil

[*]**Corresponding author:** Hugo André de Lima Martins, Rua Josefa Miranda de Farias, 94, Center, Surubim, Pernambuco, Brazil, E-mail: hugomt2001@yahoo.com.br

Rec Date: May 22, 2016; **Acc Date:** Jun 09, 2016; **Pub Date:** Jun 11, 2016

Abstract

Chikungunya virus, an alphavirus often associated with large epidemic outbreaks, has a serious social impact. The main symptoms are fever, rash and arthralgia, but recently neurologic complications have been described as an important cause of morbidity. During a large outbreak in at least five towns in poor states of the Brazilian northeast over recent months, 22 patients with chikungunya confirmed by serologic tests who presented some degree of neurologic involvement were assessed in our department. Changes in consciousness were present in almost half of the patients and epileptic seizures and persecutory delusions were present in three and four patients, respectively. As in Brazil there are insufficient serologic tests for patients with a clinical picture of neuro-chikungunya, this is probably a very underdiagnosed disease. The outcomes of the neurologic symptoms were good in all patients of the current series, in contrast with the permanent sequelae reported by other authors.

Keywords: Chikungunya; Fever; Headache; Arthralgia

Introduction

Chikungunya virus (CHIKV) is an alphavirus found worldwide [1] with recent outbreaks in Asia, Europe, and islands in the Indian Ocean [2,3]. It is an emerging disease in Brazil with a very large outbreak reported in the northeast of the country. CHIKV is transmitted by the bite of the aedes genus of mosquitoes [3] however; there is no reliable data about the prevalence of the insect in this region. Of all the alpha viruses, CHIKV is definitely the most important human pathogen in terms of mortality and morbidity [2].

CHIKV characteristically manifests as fever, rash and arthralgia [3-6] and should always be considered in the differential diagnosis in sudden onset febrile polyarthralgia [7]. The word chikungunya means, “become twisted” in the Kimakonde language, an ethnic group in southeastern Tanzania and Northern Mozambique. CHIKV fever shares some clinical signs with dengue such as fever, headache, myalgia and skin rash and can be misdiagnosed in areas where dengue is common. The most impoer

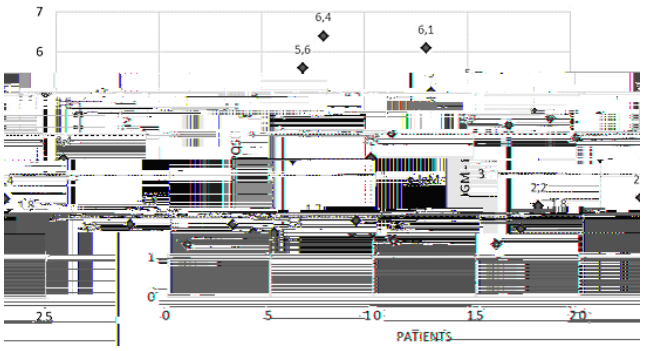

Figure 1: IgM-positive test result.

Results

Table 1 shows that the majority of the symptoms were found in over 50-year-old patients. Symptoms such as fever and arthralgia were highly prevalent. Changes in consciousness were present in almost half of the patients. T ree patients had generalized epileptic seizures and four patients had persecutory delusions, one of whom, presented suicidal behavior. One patient presented symptoms of severe transverse myelitis with muscle weakness and changes in sensitivity of the lower extremities along with sphincter dysfunction.

PAT	%	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Gen																							

Two patients had diffuse