



## **PERSISTENCE OF ANTI-CHIKUNGUNYA IGM ANTIBODIES OVER 18 MONTHS: A SERIES OF BRAZILIAN CASES**

Denise Costa (Nephrology, Clinical Hospital of Pernambuco Federal University, Recife, PE, Brasil),  
Claudia Marques (Rheumatology, Clinical Hospital of Pernambuco Federal University, Recife, PE, Brasil),  
Lucila Valente (Nephrology, Clinical Hospital of Pernambuco Federal University, Recife, PE, Brasil),  
Rosangela Coelho (Pernambuco Federal University, Recife, PE, Brasil), Luana Bezerra (Pernambuco  
Federal University, Recife, PE, Brasil), Vera Magalhães (Infectology, Pernambuco Federal University,  
Recife, PE, Brasil), Angela Duarte (Rheumatology, Clinical Hospital of Pernambuco Federal University,  
Recife, PE, Brasil)

### **BACKGROUND**

As the introduction of CF in Brazil is recent, many doubts about its course in our intensely mixed population have arisen, particularly regarding the role of the persistence of specific IgM antibodies against the Chikungunya virus (CHIKV IgM). It is known that in the viremia phase, CHIKV IgM antibodies are detected from the onset of infection until about three months after. Some studies, however, show that this persistence may be higher and related to the method used for evaluation or maintenance of symptoms.

### **MATERIALS AND METHODS**

In a cohort of 94 patients with chronic musculoskeletal manifestations at our outpatient clinic in Chikungunya, IgM antibodies sera were detected by ELISA. Patients had a mean age of 52.8 years, most of them women, with a mean disease time of 34.4 months (±5.41). In the acute phase, 96.8% of patients had fever and 98.9% had pain in the joints.

### **RESULTS**

Eight patients (8.5%) had positive serology for CHIKV IgM beyond three months of acute infection, with an average time ranging from 4 to 32 months (mean of 14.6 months). Of these, six patients remained with musculoskeletal symptoms: all had joint pain and two remained with arthritis (Table 1). Three subjects had undetermined CHIKV IgM serology and one of them had previously positive IgM. Eighty-eight patients were evaluated after 18 months, and six (6.8%) had positive or borderline serology.

### **CONCLUSION**

In our series, some patients had positive IgM beyond 18 months of disease, and this did not seem to be related to persistence of musculoskeletal inflammatory symptoms, since joint complaints were not uniform. In addition to be the first to describe the persistence of CHIKV IgM in Brazil, a country with an admixed population, this cohort has a longer IgM positivity, since most of the previous studies limit the evaluation at 18 months postinfection.