

LETTER TO THE EDITOR

Post-chikungunya chronic arthralgia: Results from a retrospective follow-up study of 131 cases in Tolima, Colombia



Beyond the acute morbidity related to Chikungunya virus disease (CHIK), its chronic consequences begin to concern in the Americas either in people living in new endemic areas as well in travelers visiting them [1,2]. With over 1.5 million cases reported between 2014 and mid-2015, estimates of post-Chikungunya chronic inflammatory rheumatism (pCHIK-CIR) would be important in order to predict the number of patients that besides care during acute phase will require it also beyond the 6 weeks after infection [3]. Estimations based on data from India and La Reunion, France, indicated that probably about 47.57% (95%CI 45.08–50.13) of infected people in Latin America in a median of 20 months would develop it if a similar pattern was observed [3]. A recent small cohort study in Sucre, Colombia ($n = 39$), the first published in Latin America, found that after a maximum follow-up of 65 weeks (15 months), 89.7% developed post-CHIK chronic polyarthralgia (pCHIK-CPA) [4]. Then, in the need of more information regard the frequency of pCHIK-CPA, here, we detailed its cumulated prevalence in patients that suffered from confirmed infection at least six weeks before current assessment with a maximum follow-up of 29 weeks (7 months) (median time of 21 weeks).

From 131 patients that suffered CHIK (diagnosed by specific serology, IgM and IgG anti-CHIK, negative for dengue) between January 2015 and May 2015 attended in Venadillo, Tolima (one of the newly endemic departments), Colombia; 75 (53.6%) corresponded to female patients, with a median age of 41 years-old (range 17–79). Of them

44.3% (95%CI 35.39–53.16) developed persistent polyarthralgia (pCHIK-CPA) that met the American College of Rheumatology/European League Against Rheumatism 2010 criteria for (seronegative) RA presented persistent polyarthralgia [5], during the last week, when all of them were reassessed after CHIK infection (July 2015); 58.0% during the last month (Table 1). These figures varied according age, being higher in those >40 years-old (48.6%) than in those ≤40 years-old (39.3%) and according sex, being higher in women (46.7%) than men (41.1%) (Table 1). A cumulated prevalence of pCHIK-CPA curve was drawn using the Kaplan–Meier method to describe the pCHIK-CPA persistence time (Fig. 1). After the follow-up, only 55.7% patients remain free of polyarthralgia. The median time for pCHIK-CPA in this cohort was 24 weeks (6 months) (95%CI 23.9–24.9). No significant difference in the survival function according age groups ($HR = 1.009$, 95%CI 0.985–1.033) or by gender ($HR = 0.985$, 95%CI 0.570–1.702) was observed.

This study found that close to half of the patients persisted with pCHIK-CPA. Fortunately, this was lower than the first retrospective cohort reported in Sucre, Colombia (89.7%) [4], but certainly higher than others in other continents [6]. Studies assessing pCHIK-CIR have been highly variable, ranging from 14.4% to 89.7% (including variable number of patients and follow-up times) [3,4,6]. Findings from this report will require more detailed prospective studies, particularly detailing the risk according age and gender with proper power to detect significant differences and predict evolution according it. Despite its limitations, this study support previous findings and estimations in Colombia [3,4] regard the long and frequent persistence of chronic consequences and their implications in disability and costs of the ongoing epidemics in the country and

Table 1 Prevalence of pCHIK-CPA in a cohort of Tolima, Colombia; overall, by gender and age groups.

% With pCHIK-CPA (95%CI)	Age groups (years-old)		
	All ages ($n = 131$)	>40 ($n = 70$)	≤40 ($n = 61$)
Total ($n = 131$)	44.3 (35.39–53.16)	48.6 (36.15–60.99)	39.3 (26.27–52.42)
Female ($n = 75$)	46.7 (34.71–58.62)	52.3 (36.38–68.17)	38.7 (19.95–57.47)
Male ($n = 56$)	41.1 (27.29–54.85)	42.3 (21.39–63.22)	40.0 (20.80–59.19)

pCHIK-CPA = post-chikungunya chronic polyarthralgia. 95%CI = 95% confidence interval.

Bold values correspond to total, >40 years-old, female and >40 years-old female patients prevalences.

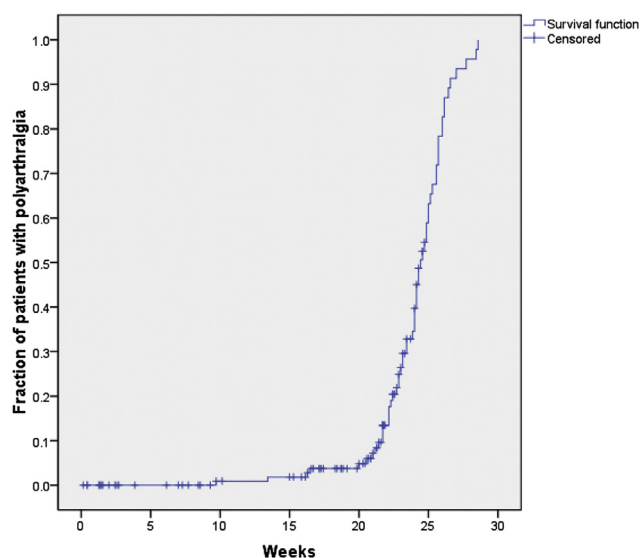


Figure 1 Kaplan–Meier curve of the cumulated prevalence of pCHIK-CPA by follow-up time.

probably in Latin America, even in young people. For travel medicine practitioners would implies the need of long-term follow-up in patients returning with CHIK from endemic areas in the region, particularly Colombia.

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Conflicts of interest

The authors have no conflict of interest to disclose.

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