

Letter to Editor

From Imported to an Endemic Disease: Impact of Chikungunya Virus Disease in the Hospital Epidemiology, Tolima, Colombia, 2014-2015

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During the last year, the region of the Americas experienced the arrival of a new emerging infectious disease, Chikungunya virus (CHIKV) infection [1, 2]. In Colombia, 96,433 cases have been reported (up to the epidemiological week 53 of 2014) [3] for cumulative incidence rate of 202.33 cases/100,000pop and many municipalities in the north of the country, the Caribbean coast region, reached rates higher than 1,000 cases/100,000 pop.

Although this, other areas in the country have been receiving imported domestic and international cases, which over the weeks, given the fact that this virus arrived to areas where *Aedes* sp. was already there for decades and efficient dengue viruses (DENV 1-4) vector become able to transmit also CHIKV [2].

This is the case of department Tolima, which is one of the 32 departments of Colombia, located in the Andean region, in the center-west of the country Fig. (1). Tolima has a surface area of 23,562 km², and its capital is Ibagué. Tolima has 47 municipalities, one of them is Venadillo (northeastern to Ibagué) Fig. (1). Venadillo is a municipality of 19,516 inhabitants (2014).

At this municipality, the main health care provider is the Hospital Santa Bárbara de Venadillo. During 2014, the hospital experienced the incoming of patients with CHIKV. During that year, just 28 cases were reported, which represented 0.2% of all consultations to this primary care hospital (28/11,360), but just in the first two months of 2015 (January and February), 1,944 cases have

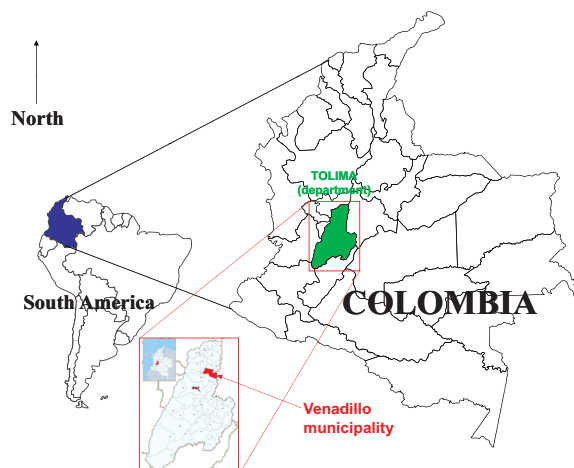


Fig. (1). Relative position of Venadillo municipality, Tolima, Colombia, South America.

been reported, representing 36.6% of all consultations to this hospital (146 times higher incidence). If we compared this relative incidence between 2014 and the beginning of 2015, this was a significant increase ($\chi^2=4416.7$; $p<0.001$).

Then, this seems to become an endemic disease in the municipality, which is affecting all groups of age. From all the CHIKV cases, 26.5% corresponded to people <20 years-old, ranging from 30 days up to 96 years-old, 50.7% males and 49.3% females Fig. (2).

Since September 2014 (first cases were diagnosed in the country) up to March 2015, six

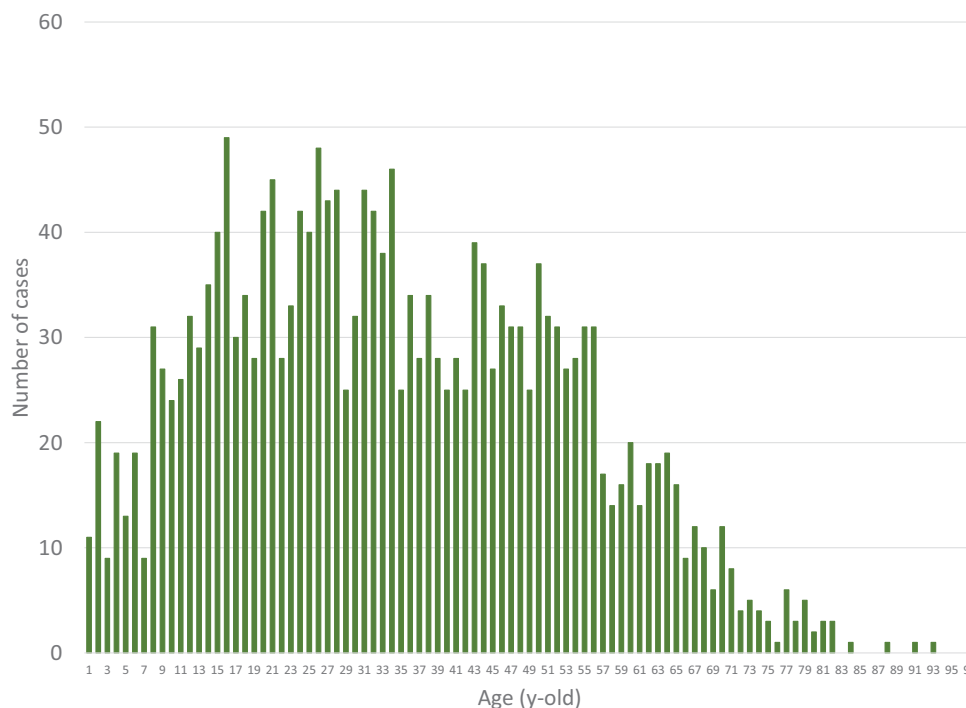


Fig. (2). Distribution by age of cases with CHIKV, Hospital Santa Barbara de Venadillo, Tolima, Colombia, South America, December 2014-March 2015.

months have passed. Although, there is not yet enough published research in the country about epidemiology, clinical, diagnostic and therapeutic aspects of this new endemic tropical disease for Colombia caused by CHIKV [1, 2].

In other countries in the region, such as Brazil, epidemiological, but also research challenges regard CHIKV are being assumed [4]. A major challenge is presented to Colombia and others in Latin America. The inclusion of the disease among the differential clinical diagnoses of dengue-like syndrome implies intense disclosure of the problem among health teams throughout the country. The occurrence of simultaneous epidemics make clinical management difficult due to the peculiarities of dengue and Chikungunya fever [4]. Even in this setting, also there is a question regarding the needs for a modern national epidemiological surveillance system and to enlarge the use of molecular diagnosis in infectious diseases such as CHIKV fever [5]. This disease has now become endemic in areas where previously dengue was endemic, and now both will be coexisting and even causing coinfection [6]. Even worse, if we consider that being present for over decades, dengue in the whole Tolima department has not been studied enough. There are only two pre-

viously published studies (from 2004 and 2005) available in international databases such as Medline and Scopus [7, 8].

CONFLICT OF INTEREST

The authors confirm that this article content has no conflict of interest.

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