



## CHIKUNGUNYA NO ESTADO DO RIO GRANDE DO NORTE: ASPECTOS EPIDEMIOLÓGICOS, CLÍNICOS E LABORATORIAIS

(Epidemiological, viral and clinical aspects of Chikungunya Fever in a cohort from Rio Grande do Norte State, Brazil)

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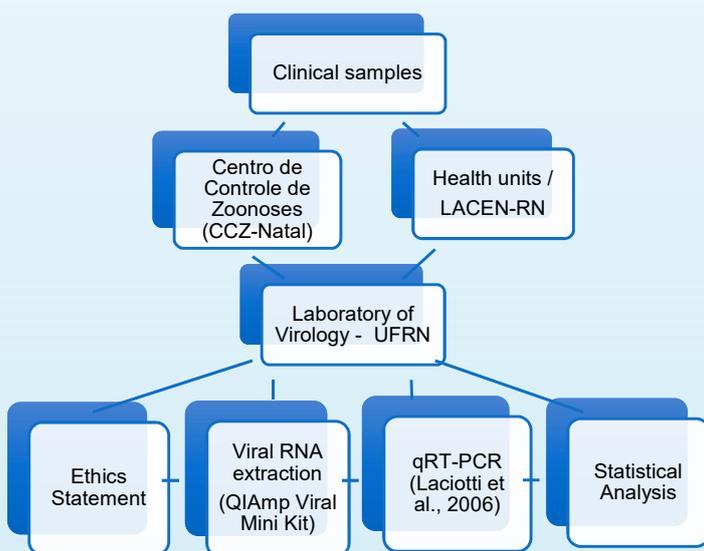
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### INTRODUCTION

The first autochthonous case of Chikungunya infection in Brazil was reported in September 2014 in the state of Amapá, and from there the virus spread to areas in the northeast and west-central regions of the country. Brazil reported 263,598 suspected cases of Chikungunya until the forty-ninth epidemiological week of 2016 (January 3rd to December 10th of 2016), with an incidence rate of 128.9 cases/ 100,000 inhabitants; 145,059 (55.03%) of these cases were confirmed. In the northeast region we can highlight Rio Grande do Norte state with 718.5 cases/100,000 inhabitants (SVS, 2017). Therefore, the present study reports the epidemiological, viral and clinical aspects of the Chikungunya infection during the 2016 epidemic in the state of Rio Grande do Norte, Brazil.

### METHODS



### RESULTS AND DISCUSSION

From January to December 2016, 284 suspected Chikungunya disease samples from Rio Grande do Norte state were tested by real time reverse transcription–polymerase chain reaction (qRT-PCR). One hundred twenty-six (126 - 44.4%) were confirmed for Chikungunya. Although the largest number of positive cases occurred in March (48 cases), the highest frequency of confirmed among presumptive cases occurred in the first two months of 2016 (Figure 1).

Among the 126 Chikungunya cases, the frequency was higher in females (49.2%; 44.44% non-pregnant and 4.76% pregnant), followed by males (36.51%) and newborns (14.29%). In addition, more female positive Chikungunya cases were found, while the male gender showed an increased chance to present a positive PCR compared to female: odds ratio (OR): 2.01; 95% confidence interval (CI): 1.16–3.47.

Samples from all age groups were evaluated and the mean age for positive cases was 33 years old. The number of Chikungunya cases in newborns, adults aged 41 to 50 years, as well as adults older than 61 years old was higher compared to the other age groups. However, the proportion of positive cases in suspected cases was significantly higher among adults aged 41–50 years and ≥61 years (Figure 2).

### RESULTS AND DISCUSSION (CONT.)

The most frequent symptom was fever and the least frequent symptoms were leukopenia, plaquetopenia and lymphadenopathy. Woman presented an increased chance to develop nausea and abdominal pain compared to men. Skin blistering in newborns with Chikungunya fever can be observed.

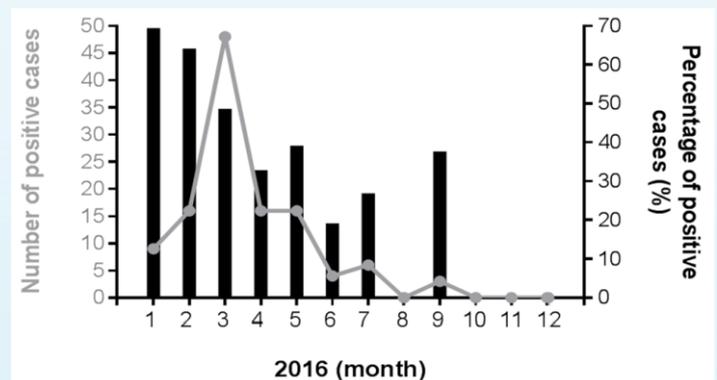


Figure 1. Absolute number of positive samples and percentage of positive samples for Chikungunya virus (CHIKV) during a chikungunya epidemic, Rio Grande do Norte, Brazil, 2016.

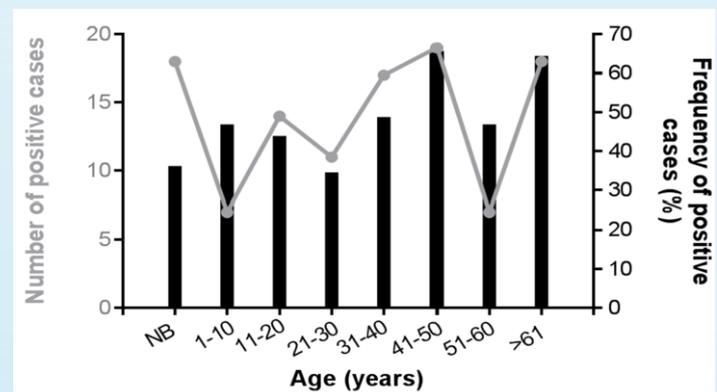


Figure 2. Absolute number of positive cases and frequency of positive cases based on tested samples stratified by age group.

### CONCLUSION

The present study is important to increase knowledge about the main clinical manifestations and the main epidemiological aspects of this predominantly symptomatic disease that has become a public health problem in Brazil.

### REFERENCES

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