



## **Use of hydroxychloroquine and prednisone in the management of chikungunya fever: results from a cohort study**

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### **BACKGROUND**

Chikungunya Fever (CF) is a virus infection transmitted by Aedes mosquitoes with multiple osteoarticular symptoms and became epidemic in 2015, especially in northeast region. Guidelines from the Brazilian Rheumatology Society include corticosteroids and anti-malarial drugs as options for the management of the disease but scientific evidence to support the use of these drugs is poor. The study aimed to analyze CF treatment performed in a reference hospital in Recife, Pernambuco.

### **MATERIALS AND METHODS**

Data was collected from a cohort study carried out at IMIP/PE, from August 2017 to July 2018, involving patients with CF assisted at the Rheumatology department. During the follow up patients were under thorough clinical evaluation. Inclusion criteria were clinical and epidemiological diagnosis of CF.

### **RESULTS**

Study with 78 patients, mean age of 50.42 years, mostly females (84.62%). Prednisone was prescribed for 9 out of 11 (81.1%), hydroxychloroquine for 7 out of 11 (63.3%) participants in acute phase. In subacute phase, 48 patients were evaluated, 33 (68.75%) used prednisone and 26 patients (54.16%), hydroxychloroquine. There was no difference on clinical parameters of the patients selected to use any of the drugs at these phases. At chronic phase, 50 patients were analyzed, 24 (48%) used hydroxychloroquine and 21 (42%), prednisone. At this stage, the prescription of prednisone was associated with a greater number of painful joints, with median of 11 (IQR: 4.0-31.50) vs 4 (IQR: 0 - 15.75)  $p = 0.04$  and with a higher physician Visual Analogue Scale (VAS) score, median of 3.65 (IQR: 2.22-5.07) vs 1.20 (IQR: 0.42 - 3.52),  $p = 0.010$ . The patients reassessed at the chronic phase had the use of hydroxychloroquine associated with improvement of joint pain [18,0 (IQR:8,0-36,75) vs 4,0 (IQR:0,0-34,5),  $p=0.001$ ], joint swelling [5,0 (IQR:1,25-17,25) vs 0,0 (IQR:0,0-2,0)  $p=0.0019$ ], VAS score for fatigue [ 6,5 (IQR:3,50-8,60) vs 0,65 (IQR:0,0-5,2)  $p=0.0019$ , VAS score for morning stiffness [0,65 (IQR:0,0-5,2) vs 2,25 (IQR:0,0-5,97)  $p = 0.0006$ ], patient's VAS score [ 7,35 (IQR:3,92-9,32) vs 2,85 (IQR:0,20-6,40)  $p = 0,0121$ ] and physician's VAS score [5,7 (IQR:3,55-8,37) vs 2,2 (IQR:0,45-3,72)  $p=0.0003$ ]. On the other hand, patients who did not use hydroxychloroquine did not improve significantly on the fatigue VAS score and number of swelling joints.

### **CONCLUSION**

Prednisone and hydroxychloroquine were the most prescribed drugs for the management of FC at all phases of the disease with good improvement on clinical parameters.