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CHRONIC USE OF HYDROXYCHLOROQUINE DID NOT PROTECT AGAINST COVID-19 IN A LARGE COHORT OF PATIENTS WITH RHEUMATIC DISEASES IN BRAZIL

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BACKGROUND

There is a lack of information on the role of chronic use of hydroxychloroquine (HCQ) during the SARS-CoV-2 outbreak. Our aim was to compare the occurrence of COVID-19 between rheumatic disease (RD) patients on HCQ with individuals from the same household not taking the drug during the first 12 weeks of community viral transmission in Brazil.

MATERIALS AND METHODS

This baseline cross-sectional analysis is part of a 24-week observational multicenter study. All information regarding COVID-19 symptoms, epidemiological, clinical and demographic data were recorded on a specific web-based platform using telephone calls from physicians and medical students. Clinically confirmed COVID-19 was defined according to the Brazilian Ministry of Health (BMH) criteria. A significant p-value was set as < 0.05.

RESULTS

From March 29th to May 17th, 2020, a total of 10,443 participants were enrolled, including 5,166 (53.9%) RD patients, of whom 82.5% with systemic erythematosus lupus, 7.8% rheumatoid arthritis, 3.7% Sjögren's syndrome and 0.8% systemic sclerosis (SS). In total, 1,822 (19.1%) participants reported flu symptoms within the 30 days prior to enrollment, of which 3.1% fulfilled the BMH criteria, but with no significant difference between RD patients (4.03%) and controls (3.25%). After adjustments for multiple confounders, the main risk factor significantly associated with clinically confirmed COVID-19 was lung disease (odds ratio, OR = 1.63; 95%CI = 1.03-2.58); and for RD patients were diagnosis of SS (OR = 2.8; 95%CI = 1.19-6.63) and glucocorticoids above 10 mg/day (OR = 2.05; 95%CI = 1.31-3.19). In addition, a recent influenza vaccination had a protective effect (OR = 0.674; 95%CI = 0.46-0.98).

CONCLUSION

Patients with RD on HCQ presented a similar occurrence of clinically confirmed COVID-19 to household cohabitants, suggesting a lack of any protective role against SARS-CoV-2 infection.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

TRIAL REGISTRATION

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