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PROFILE OF SEVENTEEN DIFFERENT AUTOANTIBODIES, IMMUNOGLOBULINS LEVELS, COMPLEMENT AND VITAMIN D LEVELS IN 30 BRAZILIAN PATIENTS WITH CHIKUNGUNYA INFECTION

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INTRODUCTION

Chikungunya virus infection (CKV) may lead to chronic arthritis in up to 40% of the patients. There are previous data regarding positive autoantibodies in CKV. The objective of this work was to evaluate systematically the presence of autoantibodies in CKV patients.

MATERIALS AND METHODS

All study participants had clinical manifestations and positivity for at least serology or real time-polymerase chain reaction (RT-PCR) for CKV. The following autoantibodies were performed: antinuclear antibodies (ANA), anti-dsDNA, anti-Sm, anti-Ro/SS-A, anti-La/SS-B, anti-U1RNP, IgG and IgM anticardiolipin, anticyclic citrullinated peptide (anti-CCP), rheumatoid factor (RF), antiribosomal P, lupus anticoagulant, anti-Jo-1 and anti-Scl-70. CH100, C3 and C4 complement components, serum levels of immunoglobulins, C-reactive protein, erythrocyte sedimentation rate, alpha1-acid glycoprotein, antithyroglobulin, antithyroperoxidase, TRAb, 25 hydroxyvitamin D (25OHD), dengue and zika IgG and IgM antibodies were also measured.

RESULTS

Thirty CKV patients were included. Mean age was 59.1 ± 15.7 years, 85% female and 77% Caucasian. Disease duration was 4.9 ± 4.0 months. Oligoarthritis was observed in 93%. Mean C-reactive protein levels were 10.1 ± 6.8 ng/dL, erythrocyte sedimentation rate 34.2 ± 19.9 mm in the 1st hour and alpha1-acid glycoprotein 115.5 ± 52.6 mg/dL. Intramuscular betamethasone depot injection in a single dose was administered in 54%, prednisone in 15% and methotrexate in 23%. Importantly, 1/30 (3.3%) was positive for ANA, 4/30 (13.3%) for RF and none was positive for anti-CCP or any other autoantibodies. Complement and immunoglobulin levels were all within the normal range. Low levels of 25OHD were observed in 88% of the cases.

CONCLUSION

Although we observed a high percentage of articular manifestations in CKV patients, the present study found a low frequency of autoantibodies in CKV patients.