LUPUS PATIENTS INFECTED BY SARS-COV2 PERFORMED LESS SOCIAL ISOLATION WITH HIGHER HOSPITALIZATION ASSOCIATED WITH HYPERTENSION AND CYCLOPHOSPHAMIDE PULSOTHERAPY – DATA FROM REUMACOV BRAZIL

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BACKGROUND

Systemic lupus erythematosus (SLE) patients have infections more frequent with higher morbidity and mortality when compared to the general population. To date, few studies have described the impact of SARS-CoV-2 infection, specifically in SLE patients. In addition to questions regarding COVID-19 incidence and outcomes in SLE patients, it is not known whether the infection could induce disease flare. The objective was to evaluate factors associated with COVID-19 severity outcomes in SLE patients.

METHODS

The ReumaCoV-Brasil is a multicenter, prospective cohort to monitor rheumatic diseases patients during SARS-CoV-2 pandemic. SLE adult patients with a diagnosis of COVID-19 were compared to those without COVID-19. SLE activity was evaluated by the patient global assessment (PGA) and SLE disease activity index (SLEDAI 2k).

RESULTS

A total of 604 SLE patients were included, 317 (52.4%) with COVID-19 and 287 (47.6%) in the control group. COVID-19 SLE patients reported a lower frequency of social isolation and worked more frequently as health professionals presented more frequently joint (32.5% vs. 22.0%; $p = 0.004$) and hematological manifestations (18.0% vs. 11.5%; $p = 0.025$). There was no difference in the mean SLEDAI-2K score between both groups in the post-COVID-19 period (5.8 [8.6] vs. 4.5 [8.0]; $p = 0.190$). However, infected patients report feeling worse about SLE activity at this period (PGA: 2.9 [2.9] vs. 2.3 [2.6]; $p = 0.031$). In the univariate logistic regression analysis, the presence of two or more comorbidities, prednisone (or equivalent) > 20 mg/day, pulse therapy with methylprednisolone or cyclophosphamide were associated with severe COVID-19. Systemic arterial hypertension (OR: 2.48 [1.04–5.91], $p = 0.041$) and cyclophosphamide pulse therapy (OR: 14.32 [2.12–96.77], $p = 0.006$) were independently associated with a greater chance of hospitalization related to COVID-19. Patients who received telemedicine support presented 67% less chance of hospitalization (OR: 0.33 [0.12–0.88], $p = 0.02$).

CONCLUSION

Hypertension and cyclophosphamide were associated with severity outcome and telemedicine can be a useful tool for SLE patients with COVID-19.

KEYWORDS

Systemic lupus erythematosus, SARS-CoV-2, COVID-19, Hospitalization.