THE ASSOCIATION BETWEEN SARS-COV-2 INFECTION AND INCREASE IN DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS PATIENTS OF PROJECT REUMACOV IN MANAUS/AMAZONAS

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BACKGROUND

Viral infections can not only be a trigger, but a worsening factor in the context of immune mediated rheumatic diseases (IMRDs). Thus, it is important to measure the impact of the new coronavirus SARS-CoV-2 infection, also known as COVID-19, in IMRDs' activity. This study has the objective of testing the association between SARS-CoV-2 infection and increase in disease activity in rheumatoid arthritis patients at the research center located in Manaus, Amazonas state.

METHODS

It is a prospective observational study with a comparison group, based on the analysis of data from patients with rheumatoid arthritis of Project Reumacov, organized by the Brazilian Society of Rheumatology, localized in Manaus, Amazonas. Case and control groups included, respectively, patients with and without current or previous suspected SARS-CoV-2 infection according to Brazilian Ministry of Health criteria. There was a presential visit to collect the clinical disease activity index (CDAI) at the moment of inclusion. Previous CDAI was obtained from most recent records until six months before the presential visit, prioritizing a value before COVID-19 symptoms in the case group. It was analyzed the association between SARS-CoV-2 infection and increase in CDAI. Chi-squared and Fisher tests were used in the statistical analysis. The study was approved by the ethical committee.

RESULTS

In total, 74 patients with rheumatoid arthritis were included. It was observed that 19/39 patients in the case group presented an increase between the current and previous CDAI values in comparison to 2/35 patients in the control group. There was an association between SARS-CoV-2 infection and increase in CDAI ($p < 0.001$).

CONCLUSION

In the present study, the association between SARS-CoV-2 infection and increase in disease activity in rheumatoid arthritis can be analyzed considering the existing relation between viral infections and worsening in rheumatic disease activity. However, poor access to consults and medication during the COVID-19 pandemic due to the need of social distancing can also be a potential factor for higher values of CDAI during this time.

KEYWORDS

Rheumatoid arthritis, Coronavirus, Rheumatic diseases.