COVID-19 in multiple sclerosis and neuromyelitis optica spectrum disorder patients in Latin America: COVID-19 in MS and NMOSD patients in LATAM

Abstract

Background: There is no data regarding COVID-19 in Multiple Sclerosis (MS) and neuromyelitis optica spectrum disorder (NMOSD) patients in Latin America.

Objective: The objective of this study was to describe the clinical characteristics and outcomes of patients included in RELACOEM, a LATAM registry of MS and NMOSD patients infected with COVID-19.

Methods: RELACOEM is a longitudinal, strictly observational registry of MS and NMOSD patients who suffer COVID-19 and Dengue in LATAM. Inclusion criteria to the registry were either: (1) a biologically confirmed COVID-19 diagnosis based on a positive result of a COVID-19 polymerase chain reaction (PCR) test on a nasopharyngeal swab; or (2) COVID-19-typical symptoms (triad of cough, fever, and asthenia) in an epidemic zone of COVID-19. Descriptive statistics were performed on demographic and clinical variables. The cohort was later stratified for MS and NMOSD and univariate and multivariate logistic regression analysis was performed to identify variables associated with hospitalizations/intensive critical units (ICU) admission.

Results: 145 patients were included in the registry from 15 countries and 51 treating physicians. A total of 129 (89%) were MS patients and 16 (11%) NMOSD. 81.4% patients had confirmed COVID-19 and 18.6% were suspected cases. 23 (15.8%) patients were hospitalized, 9 (6.2%) required ICU and 5 (3.4 %) died due to COVID-19. In MS patients, greater age (OR 1.17, 95% CI 1.05 - 1.25) and disease duration (OR 1.39, 95%CI 1.14-1.69) were associated with hospitalization/ICU. In NMOSD patients, a greater age (54.3 vs. 36 years, p=<0.001), increased EDSS (5.5 vs 2.9, p=0.0012) and disease duration (18.5 vs. 10.3 years, p=0.001) were significantly associated with hospitalization/ICU.

Conclusion: we found that in MS patients, age and disease duration was associated with hospitalization and ICU admission requirement, while age, disease duration and EDSS was associated in NMOSD.

Keywords: COVID-19; Latin America; NMOSD; multiple sclerosis; registries.

Link full text: https://pubmed.ncbi.nlm.nih.gov/33744758/