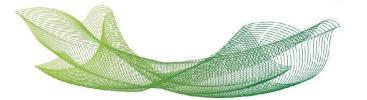


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UNIVERSIDADE SÃO FRANCISCO

Tipo	Periódico
Título	Severe Acute Respiratory Syndrome by SARS-CoV-2 Infection or Other Etiologic Agents Among Brazilian Indigenous Population: An Observational Study from the First Year of Coronavirus Disease (COVID)-19 Pandemic
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Resumo	Background: Indigenous peoples are vulnerable to pandemics, including to the coronavirus disease (COVID)-19, since it causes high mortality and specially, the loss of elderly Indigenous individuals.  Methods: The epidemiological data of severe acute respiratory syndrome (SARS) by SARS-CoV-2 infection or other etiologic agents (OEA) among Brazilian Indigenous peoples during the first year of COVID-19 pandemic was obtained from a Brazilian Ministry of Health open-access database to perform an observational study. Considering only Indigenous individuals diagnosed with SARS by COVID-19, the epidemiology data were also evaluated as risk of death. The type of sample collection for virus screening, demographic profile, clinical symptoms, comorbidities, and clinical evolution were evaluated. The primary outcome was considered the death in the Brazilian Indigenous individuals and the secondary outcome, the characteristics of Brazilian Indigenous infected by SARS-CoV-2 or OEA, as the need for intensive care unit admission or the need for mechanical ventilation support. The statistical analysis was
	done using Logistic Regression Model. Alpha of 0.05.  Findings: A total of 3,122 cases of Indigenous individuals with SARS in Brazil were reported during the first year of the COVID-19 pandemic. Of these, 1,994 were





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diagnosed with COVID-19 and 730/1,816 (40.2%) of them died. The death rate among individuals with SARS-CoV-2 was three-fold increased when compared to the group of individuals with OEA. Several symptoms (myalgia, loss of smell, and sore throat) and comorbidities (cardiopathy, systemic arterial hypertension, and diabetes mellitus) were more prevalent in the COVID-19 group when compared to Indigenous individuals with OEA. Similar profile was observed considering the risk of death among the Indigenous individuals with COVID-19 who presented several symptoms (oxygen saturation <95%, dyspnea, and respiratory distress) and comorbidities (renal disorders, cardiopathy, and diabetes mellitus). The multivariate analysis was significant in differentiating between the COVID-19-positive and non-COVID-19 patients [X2 (7)=65.187; P-value<0.001]. Among the patients' features, the following contributed in relation to the diagnosis of COVID-19: age [≥43 years-old [v.o.]; OR=1.984 (95%CI=1.480-2.658)]; loss of smell [OR=2.373 (95%CI=1.461-3.854)]; presence of previous respiratory disorders [OR=0.487; 95%CI=0.287-0.824)]; and fever [OR=1.445 (95%CI=1.082-1.929)]. Also, the multivariate analysis was able to predict the risk of death [X2 (9)=293.694; P-value<0.001]. Among the patients' features, the following contributed in relation to the risk of death: male gender [OR=1.507 (95%Cl=1.010-2.250)]; age [≥60 y.o.; OR=3.377 (95%CI=2.292-4.974)]; the need for ventilatory support [invasive mechanical ventilation; OR=24.050 (95%CI=12.584-45.962) and non-invasive ventilation; OR=2.249 (95%CI=1.378-3.671)]; dyspnea [OR=2.053 (95%CI=1.196-3.522)]; oxygen saturation <95% [OR=1.691 (95%CI=1.050-2.723)]; myalgia [OR=0.423 (95%CI=0.191-0.937)]; and the presence of kidney disorders [OR=3.135 (95%CI=1.144-8.539)].

Interpretation: The Brazilian Indigenous peoples are in a vulnerable situation during the COVID-19 pandemic and presented an increased risk of death due to COVID-19. Several factors were associated with enhanced risk of death, as male sex, older age (≥60 y.o.), and need for ventilatory support; also, other factors might help to differentiate SARS by COVID-19 or by OEA, as older age (≥43 y.o.), loss of smell, and fever.

Fomento

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