

## LETTER TO THE EDITOR

# Sicca symptoms in post-acute COVID-19 syndrome

Dear Editor,

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was first identified in December 2019 and has caused a worldwide pandemic (Zhu et al., 2020). In addition to the unprecedented global scale morbidity and mortality associated with the acute phase, several conditions have been described in the post-infectious phase—the post-acute COVID-19 syndrome (Nalbandian et al., 2021). This condition may share similarities to other post-acute viral syndromes described in survivors of other virulent coronavirus epidemics and seems to include symptoms such as dyspnea, chest pain, cognitive disturbances, arthralgia, and decline in quality of life (Carfi et al., 2020; Huang et al., 2021; Tenforde et al., 2020).

The post-acute COVID-19 syndrome can be classified as sub-acute or ongoing symptomatic COVID-19, including symptoms 4–12 weeks beyond acute COVID-19. On the other hand, chronic or post-COVID-19 syndrome conditions are observed after 12 weeks of acute onset and are not attributable to alternative diagnoses (Nalbandian et al., 2021). Symptoms may follow non-critical COVID-19 and affect more than 70% of individuals. Fatigue and sleep difficulties are the most commonly observed conditions (Huang et al., 2021). Yet, a better characterization of this syndrome is still lacking.

In this context, oral features of the post-COVID-19 syndrome are yet not described. The rehabilitation unit for survivors of severe COVID-19, located in a tertiary University Hospital in Northeast Brazil, has currently analyzed 22 individuals. The unit admits adult patients who have recovered from critical (PCR-confirmed) COVID-19 and stayed at least three days in the ICU, promoting multi-professional care, including specialists in oral medicine, speech therapy, physical therapy, nutrition, intensive care, pneumology, and infectious diseases. We have observed an intriguing manifestation of this syndrome: *sicca* symptoms lasting more than six months. We have evaluated 22 patients, 12/22 males with a mean age of 56.4 years old and an average length of stay in the ICU of eight days, and 9/22 required mechanical ventilation. Arterial hypertension (85%) and type II diabetes (6%) were the most commonly observed comorbidities.

The oral medicine specialist consultation was performed after admission to the unit. The mean time since hospital discharge was 155 days (sd = 21 days, ranging from 62–210 days). Schirmer I test considered positive for severe dry eye ( $\leq 5$  mm/5 min) in 16/22 (72, 72%) individuals. The median resting salivary flow was 0.07 ml/min, ranging from 0.0 to 1.3 ml/min, and 12/22 (54, 54%) individuals presented a reduced RSF ( $\leq 0.1$  ml/min).

Xerostomia has been reported as a relevant symptom in COVID-19 individuals (Amorim Dos Santos et al., 2021), but xerophthalmia has not been associated with this disease (Costa et al., 2021). Nevertheless, our group has recently reported an impressive elevation of Sjögren's syndrome notification (Martelli Junior et al., 2021) during the COVID-19 pandemic in Brazil. Also, the clinical profile of our small cohort is somewhat distinctive from regular SS patients, being composed of a majority of male individuals (54, 54%). Interestingly, oral dryness was not considered a relevant aspect of post-COVID-19 syndrome by Costa et al. (2021), even though their population was less than 30% of critical COVID-19 cases (Martelli Junior et al., 2021). Notwithstanding, whether this sicca syndrome represents actual Sjögren's syndrome should be better evaluated. Interestingly, a post-COVID-19 syndrome in patients with primary Sjögren's syndrome has a frequency of nearly 60% and is associated with hospitalization, baseline CRP levels, and hydroxychloroquine levels, but worsens sicca symptoms were not reported (Brito-Zerón et al., 2021). Also, the impact of these features on oral health should be a matter of concern for future prospective cohort studies.

The long-term consequences of COVID-19 are not yet fully understood, and information in the literature is still limited. Our study shows significant changes that should be investigated in this patient profile, highlighting the importance of monitoring these patients after COVID-19.

## CONFLICTS OF INTEREST

None to declare.

## AUTHOR CONTRIBUTIONS


**Thayanara Silva Melo:** Investigation; Writing – original draft; Writing – review & editing. **Renata Cristina Beltrão:** Conceptualization; Data curation; Writing – original draft. **Andréia Fátima Mendonça:** Data curation; Visualization; Writing – original draft. **Angela Duarte:** Conceptualization; Supervision; Writing – review & editing. **Luiz Alcino Gueiros:** Project administration; Supervision; Writing – review & editing.

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## PEER REVIEW

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