

## Assessment of the Masticatory Muscle Function in Young Adults Following SARS-CoV-2 Infection

**Authors :** Mimoza Canga, Edit Xhajanka, Irene Malagnino

**Abstract :** The COVID-19 pandemic has had a significant influence on the lives of millions of people and is a threat to public health. SARS-CoV-2 infection has been associated with a number of health problems, including damage to the lungs and central nervous system damage. Additionally, it can also cause oral health problems, such as pain and weakening of the chewing muscles. The purpose of the study is the assessment of the masticatory muscle function in young adults between 18 and 29 years old following SARS-CoV-2 infection. Materials and methods: This study is quantitative cross-sectional research conducted in Albania between March 2023 and September 2023. Our research involved a total of 104 students who participated in our research, of which 64 were female (61.5%) and 40 were male (38.5%). They were divided into four age groups: 18-20, 21-23, 24-26, and 27-29 years old. In this study, the students willingly consented to take part in this study and were guaranteed that their participation would remain anonymous. The study recorded no dropouts, and it was carried out in compliance with the Declaration of Helsinki. Statistical analysis was conducted using IBM SPSS Statistics Version 23.0 on Microsoft Windows Linux, Chicago, IL, USA. Data were evaluated utilizing analysis of variance (ANOVA), with a significance level set at  $P \leq 0.05$ . Results: 80 (76.9%) of the participants who had passed COVID-19 reported chronic masticatory muscle pain ( $P < 0.0001$ ) and masticatory muscle spasms ( $P = 0.002$ ). According to data analysis, 70 (67.3%) of the participants had a sore throat ( $P=0.007$ ). 74% of the students reported experiencing weakness in their chewing muscles ( $P=0.003$ ). The participants reported having undergone the following treatments: azithromycin (500 mg daily), prednisolone sodium phosphate (15 mg/5 mL daily), Augmentin tablets (625 mg), vitamin C (1000 mg), magnesium sulfate (4 g/100 mL), oral vitamin D3 supplementation of 5000 IU daily, ibuprofen (400 mg every 6 hours), and tizanidine (2 mg every 6 hours). Conclusion: This study, conducted in Albania, has limitations, but it can be concluded that COVID-19 directly affects the functioning of the masticatory muscles.

**Keywords :** Albania, chronic pain, COVID-19, cross-sectional study, masticatory muscles, spasm

**Conference Title :** ICDOH 2025 : International Conference on Dental and Oral Health

**Conference Location :** Zurich, Switzerland

**Conference Dates :** January 16-17, 2025