

# Syncope as a symptom of COVID-19 infection related to maxillofacial trauma at the emergency room door

## Abstract

This article presents the case of an 84-year-old female patient who experienced syncope as a symptom of COVID-19 infection. The patient was admitted to the emergency room with maxillofacial trauma resulting from the syncope episode. The study highlights the importance of considering syncope as a possible indicator of COVID-19, even in the absence of typical symptoms. Collaboration between medical specialties, particularly oral-maxillofacial surgeons, is crucial for accurate diagnosis and management of such cases. This case underscores the connection between syncope, maxillofacial trauma, and COVID-19 infection, emphasizing the need for awareness and collaboration in these scenarios.

**Keywords:** COVID-19, syncope, oral, maxillofacial surgery

Volume 15 Issue 5 - 2023

Kornecki Radzinski Felipe,<sup>1</sup> Noria Curbelo Maria Victoria<sup>2</sup>

<sup>1</sup>Professor, Department of Oral and maxillofacial III Surgery, School of Dentistry, University of the Republic, Uruguay

<sup>2</sup>Teaching assistant, Department of Oral and maxillofacial III Surgery, School of Dentistry, University of the Republic, Uruguay

**Correspondence:** Kornecki Radzinski, Felipe, Full Professor of department of Oral and maxillofacial III Surgery, School of Dentistry, University of the Republic, Uruguay, Email felipekorneck@gmail.com

**Received:** October 25, 2023 | **Published:** November 09, 2023

**Abbreviations:** COVID-19, coronavirus disease 2019; WHO, world health organization; CT, cranial computed tomography

## Introduction

Syncope, defined as a transient and sudden loss of consciousness due to a transient decrease in cerebral blood flow World Health Organization<sup>1</sup> has been identified in some cases as an atypical clinical manifestation of COVID-19 infection.<sup>2,3</sup> This scientific article focuses on analyzing a singular case where syncope is the only symptom of the disease, in an 84-year-old female patient who is admitted to the emergency room of her private health insurance company for presenting lesions in the maxillofacial territory as a consequence of fainting. The objective is to explore the relationship between syncope, maxillofacial trauma and COVID-19 infection, highlighting the importance of considering syncope as a possible indicator of the disease, even in the absence of other typical symptoms, and the importance of maxillofacial specialists in its detection.

## Symptoms associated with covid 19 according to WHO

The most common symptoms of COVID-19, according to WHO are the following<sup>1</sup>

- a. Fever
- b. Chills
- c. Sore throat

Other symptoms are less common among which are mentioned<sup>1</sup>

- i. Muscle pain
- ii. Severe fatigue or tiredness
- iii. Intense nasal discharge or stuffy nose
- iv. Sneezing
- v. Headache

- vi. Eye pain
- vii. Dizziness
- viii. New and persistent cough
- ix. Hoarse voice
- x. Heavy arms and/or legs
- xi. Numbness
- xii. Nausea, vomiting, abdominal pain or diarrhea
- xiii. Loss of appetite
- xiv. Loss or change in taste and/or smell
- xv. Difficulty breathing

Symptoms of severe COVID-19 disease that require immediate medical attention include<sup>1</sup>

- A. Shortness of breath, or inability to speak in complete sentences
- B. Confusion
- C. Drowsiness or loss of consciousness
- D. Chest pain or pressure
- E. Cold, clammy, pale or bluish skin
- F. Loss of speech or mobility

## Clinical case

An 84-year-old woman with a history of osteopenia and depression, who reported a history of fever for 72 hours, with no cardiovascular history, and who was admitted to the emergency room due to maxillofacial trauma caused by a fall from her height during a sudden syncope and without prodromes. On clinical examination, there was significant edema in the right half of his face, with no alterations in movement or ocular function. Intraoral examination showed a moderate limitation of oral opening. Paraclinical studies were

requested, including a CT scan, which ruled out traumatic lesions; a CT scan of the facial mass and mandible, which revealed a fracture of the right zygomatic bone with mechanical obstruction of the coronoid process on the same side; a chest X-ray, electrocardiogram and complete hematological studies, which showed no significant alterations.

After being evaluated by an internist and an oral-maxillofacial surgeon, the patient was admitted to investigate the cause of syncope. In the common room, she was evaluated by a cardiologist who ordered a Holter to evaluate the cardiovascular system, which showed no murmurs or significant alterations in the normal cardiac rhythm. In addition, an antigen test was performed to detect COVID-19, which was positive, although the patient had no symptoms related to the infection. The patient was admitted to the operating room to undergo maxillofacial surgery, following the measures established by the action protocol and the necessary precautions for surgical procedures.<sup>4</sup> The postoperative period passed without complications, and the patient was discharged after 24 hours. She was instructed to have check-ups at the polyclinic, starting with the first one a week after discharge.

## Discussion

The present case report highlights the association between syncope, maxillofacial trauma and COVID-19 infection in an 84-year-old female patient. Syncope, characterized by a transient and sudden loss of consciousness has been recognized as an atypical manifestation of SARS-CoV-2 virus disease.<sup>5</sup> In this particular case, syncope occurred as a symptom of the infection, after the patient had been asymptomatic for several days, with a history of fever, which is an uncommon situation and highlights the importance of considering syncope as a possible indicator of COVID-19, even though it is not currently described as a symptom associated with this infection by the WHO.

The patient had a medical history of osteopenia and depression, with no history of cardiovascular disease. The fever she experienced three days before the traumatic event was attributed to COVID-19 infection. However, the reason for admission to the medical emergency was maxillofacial trauma caused by the fall during the episode of syncope. Clinical findings revealed significant edema in the right half of the face, without alterations in movement or ocular function. In addition, moderate limitation of oral opening was observed.

The paraclinical studies performed in this patient were essential to establish an accurate diagnosis. Cranial computed tomography ruled out significant traumatic injuries, while CT of the facial mass and mandible revealed a fracture of the right zygomatic bone, which caused mechanical obstruction of the coronoid process on the same side. Chest X-ray and complete hematological studies showed no

relevant alterations.<sup>6</sup> The patient was evaluated by an internist and oral-maxillofacial surgeon in the emergency room. Once admitted, she was evaluated by a cardiologist who performed Holter, which showed no murmurs or significant alterations in the normal cardiac rhythm, subsequently, an antigen test was performed to detect COVID-19, which was positive. The patient underwent maxillofacial surgery under the protective measures established by the protocol of the Ministry of Public Health.<sup>7</sup> The postoperative period passed without complications, and the patient was discharged after 24 hours. She was instructed to have follow-up visits at the polyclinic, starting with a follow-up visit one week after discharge.

## Conclusion

This clinical case highlights the association between syncope, maxillofacial trauma and COVID-19 infection. Syncope as a symptom of the disease, and as a consequence of the presence of maxillofacial lesions, poses a diagnostic challenge, in which the oral maxillofacial surgeon becomes a fundamental pillar. It is essential to consider syncope as a possible indicator of COVID-19, even in the absence of other typical symptoms, although it has not been described in many clinical cases. The importance of collaboration between the different medical specialties in the diagnosis of these infections is also emphasized.

## Acknowledgments

None.

## Conflicts of interest

The author declares that there are no conflicts of interest.

## References

1. World Health Organization. 2023.
2. Hernández PI, Talavera EB, Valle PG, et al. Isolated syncope as a form of presentation of COVID-19 infection. *Neurologia*. 2021;36(2):185–187.
3. Zheng YY, Ma YT, Zhang JY, et al. «COVID-19 and the cardiovascular system. *Nat Rev Cardiol*. 2020;17(5):259–260.
4. Kornecki RF. COVID 19 and Bucomaxillofacial surgery. *Odontostomatology*. 2020;22(1):50–59.
5. Mao L, Jin H, Wang M, et al. Neurologic manifestations of hospitalized patients with coronavirus disease 2019 in Wuhan, China. *JAMA Neurol*. 2020;77(6):683–690.
6. Lippi G, South AM, Henry BM. Electrolyte imbalances in patients with severe coronavirus disease 2019 (COVID-19). *Ann Clin Biochem*. 2020;57(3):262–265.