

Should Dentist be a Part of COVID Care Team?

ARADHANA NAGARSEKAR¹, RIDHIMA GAUNKAR², PRAVEEN JODALLI³, ASHLEY SANTIMANO⁴

Keywords: Atypical herpetic lesions, Coronavirus disease, Evidence, Oral manifestations

Dear Editor,

The Coronavirus Disease-19 (COVID-19) pandemic sweeping across the globe can cause an altered immune reaction similar to the autoimmune damage, deleteriously affecting the cellular response of the host. At times, body's first line of defence mechanism fails to defeat the virus as it does not respond effectively to inflammatory shield [1]. The morbidity rate is reportedly higher in the geriatric population and in patients with underlying comorbidities such as asthma, diabetes, cancer and cardiac diseases [2]. Interestingly, COVID -19 patients do not follow a categorical pattern of infection. Population specificity of Angiotensin Converting Enzyme 2 (ACE2), which is the receptor of Severe Acute Respiratory Syndrome-Corona Virus-2 (SARS-CoV-2) and mutation of viral surface proteins (spike-S-protein and nucleocapsid-N protein) could be responsible for atypical symptoms of the disease [3].

Though lungs are the primary site of COVID-19 infection with manifestations ranging from flu-like symptoms to sudden respiratory distress, mucotropic ability of SARS-CoV-2 could potentially lead to altered salivary gland function, reduced sensation of taste and changes in oral mucosa [1]. Studies have revealed expression of ACE2 receptors in tongue, buccal and gingival tissue and minor salivary gland ducts in oral cavity. Oral symptoms like amblygeusia and dry mouth in COVID-19 patients suggest dysfunction of these receptors [4]. SARS-CoV-2 could also provoke oral atypical herpetic look alike lesions like ulcers or blisters that may resemble other viral infections [5]. However, more robust scientific evidence is required to support this claim. It is still not clear, if oral manifestations are caused primarily due to COVID-19 or secondary to immunodeficiency condition, considering the possibility of opportunistic infections [6]. Moreover, the effect of intricate pharmacotherapy and emotional distress during intense hospitalisation for COVID-19 cannot be underestimated while assessing patient's oral health [1].

India's COVID-19 cases are escalating at an alarming rate. Currently, Indian Public health care system catering to the world's second highest population is under-resourced and over-stretched. Adopting a multidisciplinary approach of including a dentist in person or via teledentistry in the COVID care team may have a positive impact on patient's quality of life. Dentist can provide supplementary treatment by suggesting rehydration therapy, alleviating pain and discomfort in oral cavity and reinforcing oral hygiene measures. This will help to tackle nutritional deficiencies, thereby aiding faster recovery from COVID-19.

Thus, dentists can provide curative as well as preventive oral care for hospital/home quarantined COVID-19 patients.

REFERENCES

- [1] Dziejdz A, Wojtyczka R. The impact of coronavirus infectious disease 19 (COVID-19) on oral health [published online ahead of print, 2020 Apr 18]. *Oral Dis.* 2020;10.1111/odi.13359.
- [2] Paital B, Das K, Parida SK. Inter nation social lockdown versus medical care against COVID-19, a mild environmental insight with special reference to India. *Sci Total Environ.* 2020;728:138914.
- [3] Lechien JR, Chiesa-Estomba CM, De Siati DR, Horoi M, Bon Le SD, Rodriguez A, et al. Olfactory and gustatory dysfunctions as a clinical presentation of mild-to-moderate forms of the coronavirus disease (COVID-19): A multicenter European study [published online ahead of print, 2020 Apr 6]. *Eur Arch Otorhinolaryngol.* 2020;277(8):2251-61.
- [4] Xu H, Zhong L, Deng J, Peng J, Dan H, Zeng X, et al. High expression of ACE2 receptor of 2019-nCoV on the epithelial cells of oral mucosa. *Int J Oral Sci.* 2020;12:8.
- [5] Carreras-Presas CM, Sánchez JA, López-Sánchez AF, Salas-jane E, Carrera MLS, et al. Oral vesiculobullous lesions associated with SARS-CoV-2 infection [published online ahead of print, 2020 May 5]. *Oral Dis.* 2020 May 29; 10.1111/odi.13382.
- [6] Santos Dos JA, Normando Costa AG, Da Silva RL, Paula De RM, Cembranel AC, Silva Santos AR, et al. Oral mucosal lesions in a COVID-19 patient: new signs or secondary manifestations? infection [published online ahead of print, 2020 June 9]. *International Journal of Infectious Diseases.* 2020;97:326-28.

PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of Prosthodontics, Goa Dental College and Hospital, Panjim, Goa, India.
2. Assistant Professor, Department of Public Health Dentistry, Goa Dental College and Hospital, Panjim, Goa, India.
3. Reader, Department of Public Health Dentistry, Yenopoya Dental College, Mangaluru, Karnataka, India.
4. Dental Surgeon and Implantologist, Department of Dentistry, Goa Dental Solution, Colva, Goa, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Ridhima Gaunkar,
Assistant Professor, Department of Public Health Dentistry, Goa Dental College and Hospital, Panjim, Goa, India.
E-mail: drbirmani@gmail.com

PLAGIARISM CHECKING METHODS: [Jan H et al.]

- Plagiarism X-checker: Jun 15, 2020
- Manual Googling: Jun 29, 2020
- iThenticate Software: Jul 24, 2020 (13%)

ETYMOLOGY: Author Origin

AUTHOR DECLARATION:

- Financial or Other Competing Interests: None
- Was Ethics Committee Approval obtained for this study? NA
- Was informed consent obtained from the subjects involved in the study? NA
- For any images presented appropriate consent has been obtained from the subjects. NA

Date of Submission: **Jun 14, 2020**
Date of Peer Review: **Jun 23, 2020**
Date of Acceptance: **Jun 29, 2020**
Date of Publishing: **Aug 01, 2020**