

Oral mucosa lesions in COVID-19

Dear Editor,

SARS-CoV-2 marks a new era in the medical field. The literature has outlined several signs and symptoms of COVID-19 (Lake, 2020), but there are some manifestations not yet confirmed or not entirely described.

There have been reported several dermatological conditions associated with COVID-19: rash, urticaria and chickenpox-like vesicles (Recalcati, 2020), and studies on cutaneous manifestations of COVID-19 have been announced (Fernandez-Nieto et al., 2020).

The main path of COVID-19 transmission is through droplets (The Chinese Preventive Medicine Association, 2020) from the oral cavity. This is why dental professionals are widely exposed to be infected, but they could also be the first ones to identify SARS-CoV-2-positive patients. Carreras-Presas et al. published a paper presenting three case reports describing oral mucosa vesiculobullous lesions developed by COVID-19 positive or suspected to be positive patients. The lesions were described as painful ulcers or blisters. One patient was confirmed to be SARS-CoV-2 positive, the second patient was the husband of a SARS-CoV-2-positive woman, and the third patient had fever, asthenia, hyposmia and dysgeusia, but was not tested for COVID-19, due to the not so severe symptoms. All lesions were treated and ameliorated within 3–10 days (Carreras-Presas, Sánchez, López-Sánchez, Jané-Salas, & Somacarrera Pérez, 2020).

Since oral mucosa could be the first area infected with SARS-CoV-2, it could be hypothesised that oral mucosa lesions could be the first COVID-19 signs to arise, if they were to be considered COVID-19 signs. If studies will confirm this hypothesis, the dental practitioners would be the first to identify suspect SARS-CoV-2-positive patients and could send them to get tested and treated appropriately.

The SARS-CoV-2-positive patient mentioned by Carreras-Presas et al. had pain in her tongue (Carreras-Presas et al., 2020), which may be due to the higher expression of angiotensin-converting enzyme 2—the receptor for SARS-CoV-2—in the epithelial cells of the tongue, in comparison with the buccal or gingival tissues (Xu et al., 2020). Taking into account that anosmia and ageusia (olfactory and gustatory dysfunctions) are confirmed to be inflammation-induced COVID-19 symptoms (Lechien et al., 2020), we suggest COVID-19 might include oral signs and symptoms, which need to be particularly investigated.

Oral mucosa lesions could be the result of plenty other factors, such as stress due to social life restrictions during COVID-19 pandemic lockdown, lack of oral hygiene, work pressure (Guo, Yuan, & Wei, 2020), or herpes simplex virus (Carreras-Presas et al., 2020). Topical antiseptic oral applications recommended to reduce the oral viral load such as hydrogen peroxide-based mouthrinse solutions (Hasturk, Nunn, Warbington, & Van Dyke, 2004) could also induce oral ulcers (Gusberti, Sampathkumar, Siegrist, & Lang, 1988). The thorough anamnesis should identify the cause of the oral lesion.

This paper aims to raise awareness among dental practitioners that careful intraoral examination of the mucosa is mandatory, before starting dental treatment, especially when it comes to suspect patients infected by SARS-CoV-2. Thorough research is needed to understand the connection between oral mucosal lesions and COVID-19 and to demonstrate the previously exposed theory.

KEYWORDS


COVID-19, mucosal viral lesion, oral mucosal lesion, SARS-CoV-2

CONFLICTS OF INTEREST

None to declare.

AUTHOR CONTRIBUTION

Nausica Petrescu: Conceptualization; Formal analysis; Investigation; Resources; Validation; Visualization; Writing-original draft; Writing-review & editing. **Ondine Lucaciu:** Conceptualization; Data curation; Formal analysis; Investigation; Resources; Supervision; Validation; Visualization; Writing-original draft; Writing-review & editing. **Alexandra Roman:** Conceptualization; Investigation; Resources; Supervision; Validation; Visualization; Writing-original draft; Writing-review & editing.

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