

## Letter to the Editor

# Oral mucosal lesions and Covid-19: symptoms and/or complication?

Juliette Rochefort<sup>1,\*</sup>, Anne Gaelle Chaux<sup>2</sup>

<sup>1</sup> Service Odontologie Hôpital Pitié Salpêtrière, Université de Paris, Paris, France

<sup>2</sup> Université Claude Bernard Lyon I, Faculté d'odontologie, 11 rue Guillaume Paradin, 69008 Lyon, France

(Received: 15 January 2021, accepted: 15 January 2021)

Oral manifestations associated with the COroNaVIrus 2019 Disease (COVID-19) have been described like lingual pain [1] in relation to higher expression of angiotensin-converting enzyme 2, the SARS-CoV-2 receptor, in epithelial cells of the tongue compared to other oral tissues [2], and anosmia or ageusia induced by inflammation [1].

There are also ulcers, which have been reported by many authors [1,3], but their etiology remain uncertain [1]. They may be due to the infection itself: observations have been made on vascular and arterial thrombosis on small and medium-sized vessels in COVID-19 [4] and a similar pathophysiology could cause oral ulcers, like in Behçet or Wegener disease.

However, these ulcers can also be secondary to the general condition of the patient [1]. Indeed, they were very similar to recurrence herpetic infection and no tests were done on these patients to exclude it. Moreover, the situation of anxiety and stress due to the restrictions of social life during confinement or due to the work-related pressure that many patients have reported, could also participate in the development of aphthoid ulcers or herpetic recurrences. Thus, the direct involvement of the Sars Cov 2 virus in the development of oral ulcers remains uncertain.

Anyway, several authors report a coexistence between the presence or the suspicion of COVID-19 and oral ulcers. It seems therefore imperative to carry out a SARS COV2 PCR search in any patient presenting oral ulcers of unknown origin. Moreover, it could be interesting for patients with a clinical diagnosis of COVID-19 (PCR positive or not) as well as for asymptomatic patients with a positive PCR, to have a systematic oral examination. This would make it possible to establish management of oral pain and lesions, and to take an oral viral sample for detection of SARS COV2, and HSV 1 and thus allowing improving our knowledge on the intrications between these infections.

It also seems mandatory to monitor the development and / or evolution, or relapses, of autoimmune pathologies. Indeed, links between COVID-19 and autoimmunity have been reported [5]. Authors have reported that a large number of diagnoses of autoimmune pathologies had been issued in a subgroup of patients with COVID-19. This could be an indicating of the critical and pivotal role of the SARS-CoV2 virus on immunity. In our practice, several patients with COVID-19 have indeed presented relapses of their autoimmune pathology (lupus, lichen planus, erythema multiforme), and we have noted that certain new diagnoses of lichen planus have been made in patients having contracted COVID-19 in the previous 12 months. What is the share of responsibility of the virus and that of the anxiety developed in this context of health crisis, difficult to establish this limit. More advanced clinical studies on the subject may be able to answer these questions.

**Conflicts of interests:** The authors declare no conflicts of interest.

## References

1. Abu-Hammad S, Dar-Odeh N, Abu-Hammad O. SARS-CoV-2 and oral ulcers: a causative agent or a predisposing factor? Oral Dis 2020; doi: [10.1111/odi.13498](https://doi.org/10.1111/odi.13498).
2. 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;12:1–5.
3. Chaux-Bodard A-G, Deneuve S, Desoutter A. Oral manifestation of Covid-19 as an inaugural symptom? J Oral Med Oral Surg 2020;26:18.
4. Becker RC. COVID-19-associated vasculitis and vasculopathy. J Thromb Thrombolysis 2020;50:499–511.
5. Halpert G, Shoenfeld Y. SARS-CoV-2, the autoimmune virus. Autoimmun Rev 2020;19:102695.

\* Correspondence: [juliette.rochefort@aphp.fr](mailto:juliette.rochefort@aphp.fr)