Manifestações orais em pacientes infectados com sars COV-2

Oral manifestations from sars COV-2 in infected patients

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ABSTRACT
The recent outbreak of the novel coronavirus 2019 (Covid-19) spread rapidly throughout several countries around the worldand has posed enormous health challenges. Symptom of Covid-19 are non-specific and the disease presentation can range from no symptoms (asymptomatic) to severe pneumonia and death. The most commonly reported oral manifestations in the literature are ulcer, erosion, bulla, vesicle, pustule, fissured or depapillated tongue, macule, papule, plaque, pigmentation, halitosis, among others. The professionals must be prepared to recognize theoral manifestations of the disease to promote the most adequate treatment. This study presents 5 cases of oral manifestations in patients diagnosed with Covid-19. The patients presented ulcerations, vesiculopapular lesions, papillary lesions, lingual erythesa, keratose-like lesions and white plaque. Lips, tongue, labial mucosa, palate and gum were affected. If this hypothesis is proven, when health professionals observe these oral manifestations, they could refer these patients to be tested and perform the appropriate treatment.

Keywords: Coronavirus Infections, Diagnosis, Oral, Oral Manifestations, Oral Medicine, Case Reports.

RESUMO
O recente surto do novo coronavírus 2019 (Covid-19) se espalhou rapidamente por vários países ao redor do mundo e implicou grandes desafios à saúde. Os sintomas da Covid-19 são inespecíficos e a apresentação da doença pode variar de nenhum sintoma (assintomático) a pneumonia grave e morte. As manifestações orais mais comumente relatadas na literatura são úlcera, erosão, bolha, vesícula, pústula, língua fissurada ou despapilada, mácula, pápula, placa, pigmentação, halitose, dentre outras. Os profissionais devem estar preparados para reconhecer as manifestações teóricas da doença para promover o tratamento mais adequado. Este estudo apresenta 5 casos de manifestações

orais em pacientes com diagnóstico de Covid-19. Os pacientes apresentaram ulcerações, lesões vesiculopapulares, lesões papilares, eritema lingual, lesões tipo ceratose e placa branca. Lábios, língua, mucosa labial, palato e gengiva foram afetados. Se comprovada essa hipótese, quando os profissionais de saúde observarem essas manifestações bucais, poderão encaminhar esses pacientes para serem testados e realizar o tratamento adequado.

Palavras-chave: Infecções por Coronavirus, Diagnóstico Bucal, Manifestações Bucais, Medicina Bucal, Relatos de Casos.

1 INTRODUCTION

The first human cases of coronavirus disease 2019 (Covid-19), the nearly discovery disease caused by the novel coronavirus causing SARS-CoV-2 (Severe Acute Respiratory Syndrome Coronavirus) were reported by officials in Wuhan City, China, in December 2019, and spread rapidly throughout most countries around the world. According the World Health Organization (WHO, 2020), on 19 January 2021, over 93 million reported cases and over 2 million deaths globally since the start of the pandemic. So far, Brazil has the third-highest number of confirmed Covid-19 cases in the world (WHO, 2020).

Symptom of Covid-19 are non-specific and the disease presentation can range from no symptoms (asymptomatic) to severe pneumonia and death (Wu et al., 2020). The most common symptoms are non-specific, such as fever (98%), cough (76%), and myalgia or fatigue (44%) (Iranmanesh et al., 2020). The atypical symptoms included sputum (28%), headache (8%), hemoptysis (5%) and diarrhea (3%) (Huang et al., 2020).

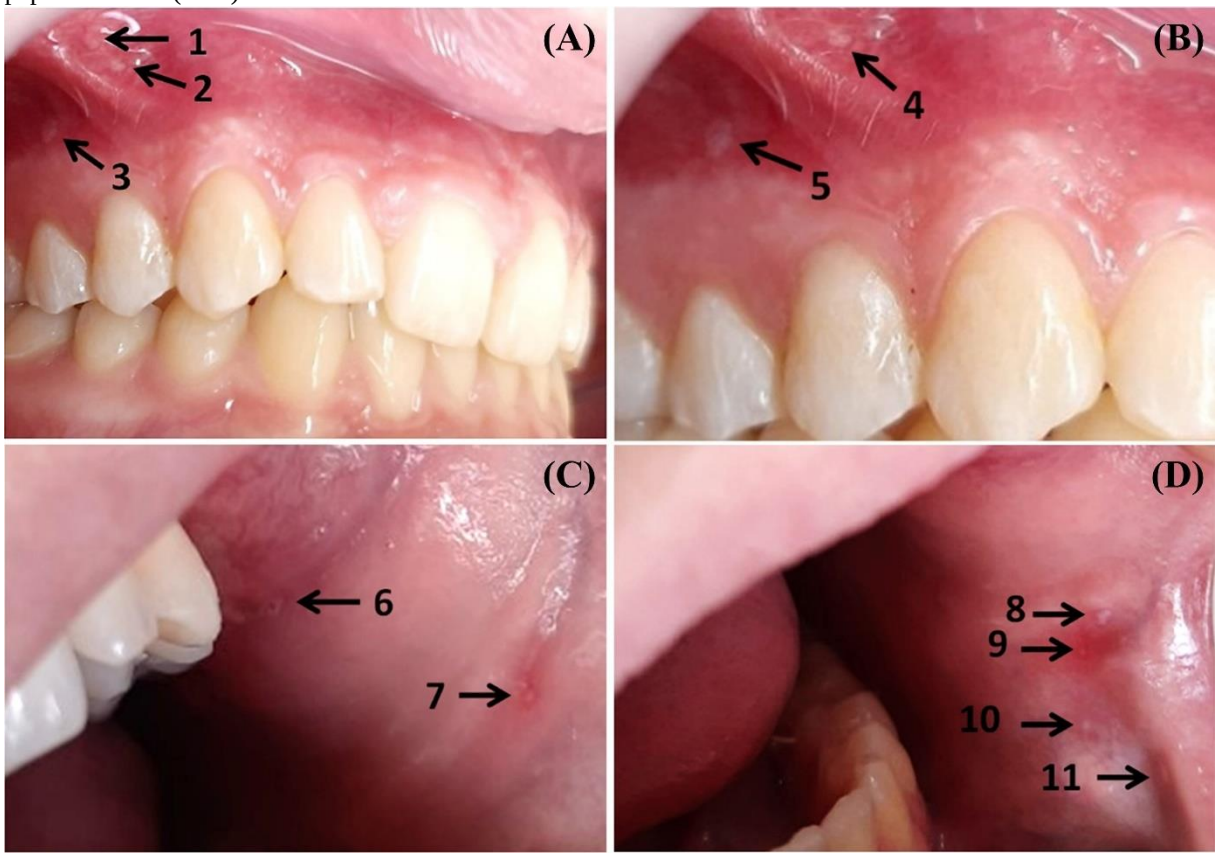
Infection with Covid-19 also may result in oral manifestations. The results from review in PubMed database (U.S. National Library of Medicine and the National Institutes of Health) regarding oral manifestations in patients with Covid-19 shows some clinical presentations that includes, petechiae, ulcers, traumatic ulcers, candidiasis, dysgeusia, herpes simplex virus infection (HSV-1) and geographical tongue. These lesions can appear on lips, tongue, gingiva, hard and soft palate, oral and pharyngeal mucosa (Santos et al., 2020).

The oral manifestations of the Covid-19 should be studied in order to describe the oral phenotypes of the disease, as well as to aid the correct diagnostic and treatment of the patients. Therefore, this manuscript aimed to report five cases of oral manifestations in patients infected by the Covid-19.

2 CASE REPORT 1

On November 6th, 2020, a 17 years-old male was diagnosed with Covid-19. After 34 days, the patient sought dental care reporting oral lesions (Figure 1). On clinical examination, several oral lesions were observed that, according to the patient, appeared during the infection of the Covid-19, including ulcerations in alveolar rim and vestibule fundus, ulcerations in the jugal mucosa, vesiculopapular lesions in the jugal mucosa and also purpuras. The patient did not report discomfort, so only the follow-up of the case was performed until the lesions disappeared, that regressed after 15 days.

Figure 1. 7-year-old patient diagnosed with COVID-19 after 24 days. Ulcerations in alveolar border region and vestibule bottom (1-5), ulcerations in the jugal mucosa (6-7), small ulcerated nodule and vesicular-papular lesions (8-11) are noted.

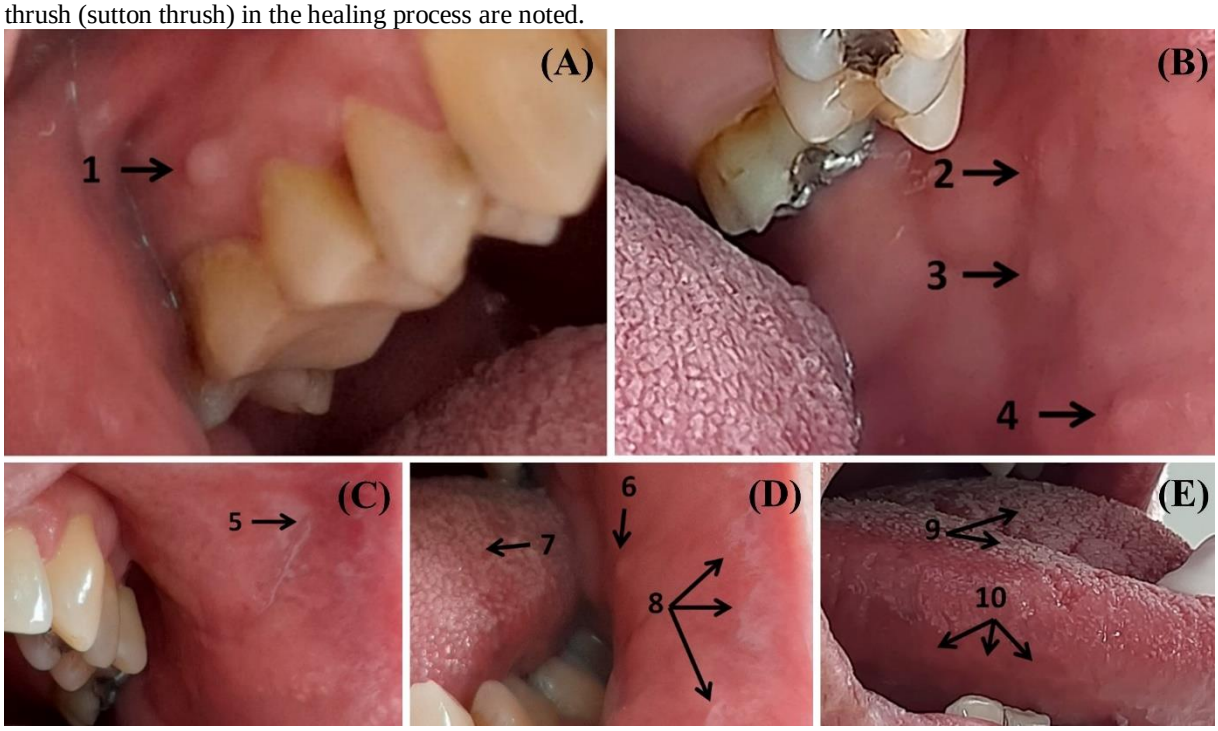


3 CASE REPORT 2

On November 18th, 2020, a 64 years-old male was diagnosed with Covid-19. After 24 days, the patient sought dental care complaining persistent painful oral lesions in the tongue and mucous jugal (cheeks) and painless lesions in the gums (Figure 2). Clinical examination showed the presence of vesiculo-papular lesions in the gum of maxillary premolar and jugal mucosa. Close to labial commissure a healing ulceration

was noted and in the jugal mucosa white plaques suggestive of candidiasis was observed associated with leukoplakia and vesiculo-papular lesions. White plaques were observed in the tongue and some ulcerations being one of them a giant thrush (sutton's cold sore) which was already in the process of healing. The tip of the tongue was erytheteous and the patient reported that he did not feel sensitivity or taste of food. Chlorhexidine digluconate 0.12%were prescribed to treat the ulcerated lesions. As for the other painless manifestations, follow-up guidance was made. All the lesions regressed after 20 days.

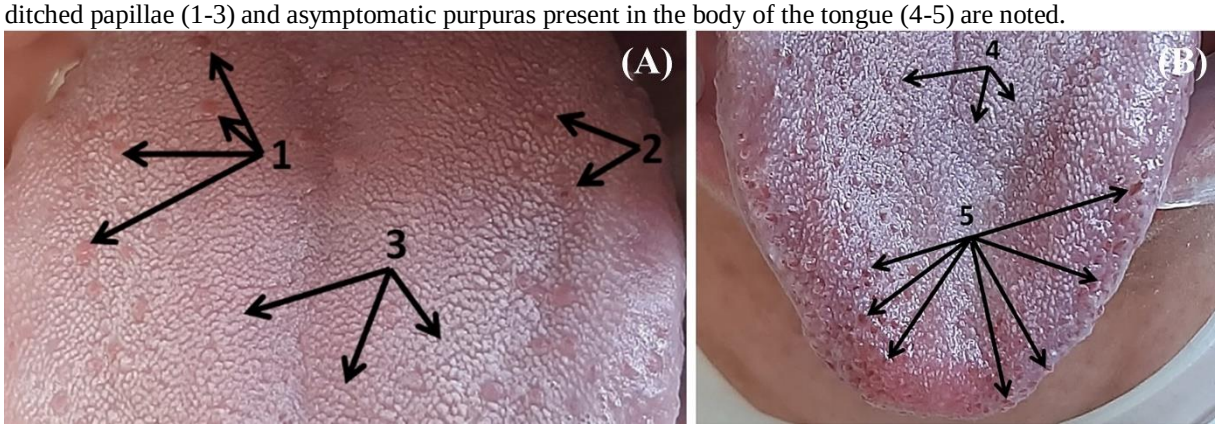
Figure 2. 64-year-old patient diagnosed with COVID-19 after 24 days. A small nodule in gum inserted above the interproximal cervical of teeth 14 and 15 (1), vesiculo-papular lesions in an area of jugal mucosa (2-4), ulceration in the healing process (5), vesiculopapular lesion, white plaques on the tongue, white plaques suggestive of candidosis associated with leukoplakia (6-8) and white plaques in tongue, Giant thrush (sutton thrush) in the healing process are noted.



4 CASE REPORT 3

On November 27th, a 33 years-old female was diagnosed with Covid-19. After 24 days, the patient sought dental care reporting several persistent oral lesions that initiated with Covid-19 systemic symptoms (Figure 3). On clinical examination, papillary and lesions with a purpura aspect were observed in the tongue. At the lingual apex the patient presented erythema resulting burning and absence of taste sensation in this region. The lesions regressed spontaneously in 15 days.

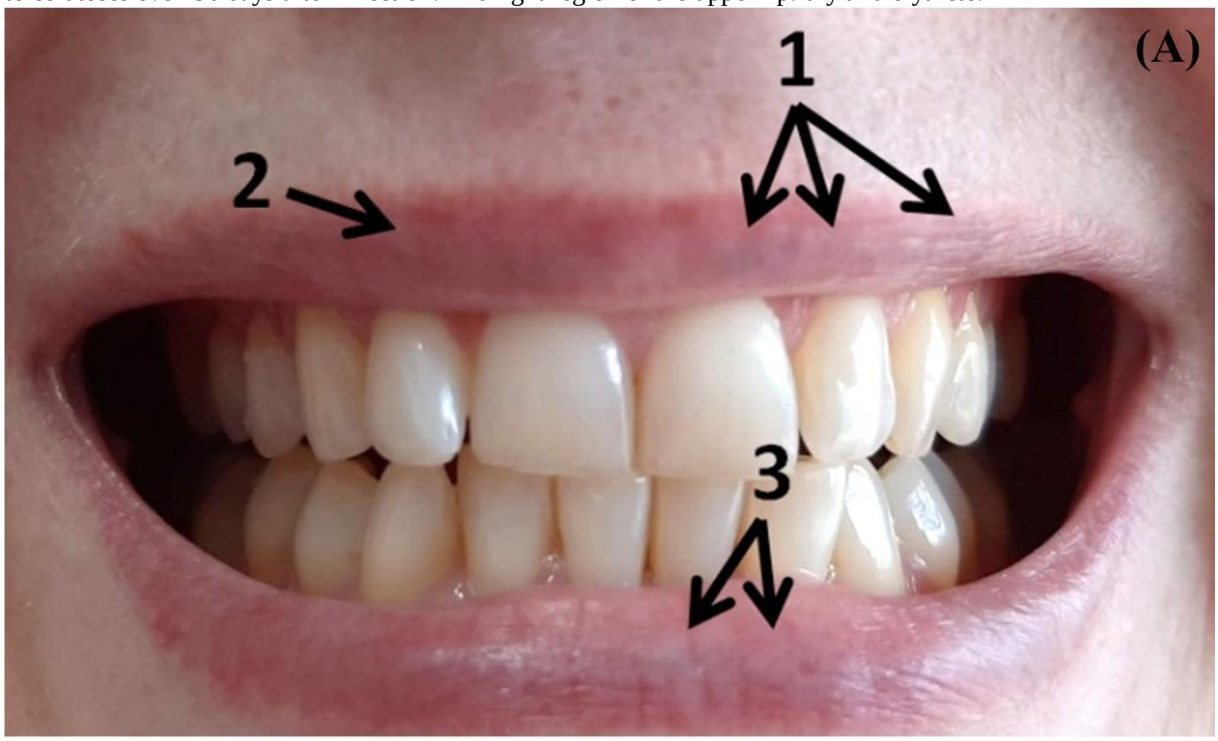
Figure 3. 33-year-old patient diagnosed with COVID-19 after 24 days. Hyperplastic taste buds (papillitis), ditched papillae (1-3) and asymptomatic purpuras present in the body of the tongue (4-5) are noted.



5 CASE REPORT 4

On September 22nd, a 49 years-old female was diagnosed with Covid-19. After 104 days, the patient sought dental care for dental bleaching and evaluation of asymptomatic erythematic lesions on lips (Figure 4). The patient reported that the lesions initiated during Covid-19 infection. During the clinical examination, dry lips and keratose-like lesions were observed. Lip balm daily was prescribed until the remission of the signals, that occurred after 20 days.

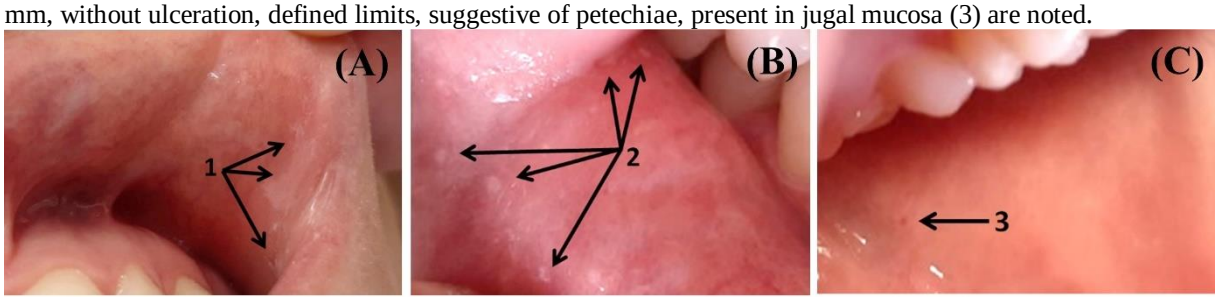
Figure 4. 49-year-old patient diagnosed with COVID-19 after 104 days. Bluish lesions on the lips similar to ceratoses even 90 days after infection. The right region of the upper lip: dry and erythete.



6 CASE REPORT 5

On November 14th, 2020, a 24 years-old female was diagnosed with Covid-19. After 74 days, the patient sought dental care due to persistent oral lesions that arose during Covid-19 infection (Figure 5). On clinical examination, it was observed plaque injury, whitish staining in jugal mucosa with defined limits, vesiculo-papular lesions, and also spot-shaped lesion. As for the other painless manifestations, follow-up guidance was made. All the lesions regressed after 14 days.

Figure 5. 24-year-old patient diagnosed with COVID-19 after 74 days. Plaque lesion, whitish color action in jugal mucosa with defined limits, measuring about -30mm to its greatest extent, not ulcerated (1), vesiculo-papular lesions (2), and stain-shaped lesion, punctiform, reddish coloration, measuring about 1 mm, without ulceration, defined limits, suggestive of petechiae, present in jugal mucosa (3) are noted.



7 DISCUSSION

The oral manifestations described in this manuscript corroborates with the manifestations reported by Iranmanesh et al. (2020). The authors reviewed the most common oral manifestations of Covid-19 patients. The most common affected areas were tongue (38%), followed by labial mucosa (26%) and palate (22%) (Iranmanesh et al., 2020). We also observed different areas of the mouth were affected in the cases of the patients presented here.

Many oral manifestations were described, such as ulcer, erosion, bulla, vesicle, pustule, fissured or depapillated tongue, macule, papule, plaque, pigmentation, halitosis, whitish areas, hemorrhagic crust, necrosis, petechiae, swelling, erythema, and spontaneous bleeding. The latency time between appearance of systemic symptoms and oral lesions was between 4 days before up to 12 weeks after onset of systemic symptoms (Iranmanesh et al., 2020). All the cases reported here sought for dental treatment some weeks after the infection.

Infectious diseases, especially of viral etiology, may cause the lesions reported above. The professionals must consider the deterioration of general status and decline in oral hygiene, resulting candidiasis and herpetiform lesions. According to Santos et al.

(2020) e Ansari et al. (2020) even healthy patients who are affected by Covid-19 may present these oral manifestations, but pointing out hypotheses whether it is a result of strong direct viral infection or decreased immune response capacity of the patient that could open the door to opportunistic infections and also to pharmacological treatments performed. According to Katz and Yue (2021) there is higher prevalence of recurrent aphthous stomatitis in patients confirmed with Covid-19 than in healthy patients. Xu et al. (2020) point to the oral cavity as a target for novel coronavirus, explained by the wide distribution of receptors in the oral tissues and the spectrum of changes published in the literature associated with Covid-19 including aphthous and vesicular ulcerations (Xu et al., 2020).

According to Santos et al. (2020) during and after coronavirus disease, the occurrence of these signs and oral symptoms should be considered, including petechiae, ulcers, traumatic ulcers, candidiasis, dysgeusia, herpes simplex virus (HSV-1) infection, geographic language and white plaques. It is worth remembering that hyposmia, hypogeusia and dysgeusia have etiology pointed out by viral neurotropic mechanisms of access to the central nervous system through systemic circulation or through the cribriform lamina of the ethmoidal bone (Li; Bai; Hashikawa, 2020). Viral neuro invasion and subsequent central neuronal injury were also proposed to contribute to the pathogenesis of the disease. The interaction between Covid-19 with ACE-2 receptors (angiotensin-converting enzyme) may be related to signs and symptoms in the oral mucosa and consequent dysfunction of the immune response of oral cells(Li; Bai; Hashikawa, 2020). When oral manifestations are suspected to be resulted from Covid-19 infection, these patients must be tested and treated appropriately.

New variants of the coronavirus-19 have been detected in Brazil, France, Australia, Germany, Switzerland, Japan, Sweden, South Korea, Finland, Ireland, South Africa, Netherlands, and United Kingdom (Makoni, 2021) and their effects in oral region are still unknown until this moment. Clinicians and researchers should keep registering and reporting the oral findings observed in this patients.

8 CONCLUSION

This study showed 5 cases of oral lesions in patients diagnosed with Covid-19. The patients presented ulcerations, vesiculopapular lesions, white plaques, papillary lesions, lingual erythesa, keratose-like lesions and white plaque. Lips, tongue, labial mucosa, palate and gum were affected, therefore, if this hypothesis is proven, when health

professionals, especially dental surgeons, observe these oral manifestations, they could refer these patients to be tested and perform the appropriate treatment.

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