Mucosal involvement in a COVID-19-positive patient: a case report

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Statement of Contribution of Authors

Filiz Cebeci Kahraman: Author is primary physician of concerning patient, supervisor of process. Author created the idea, designed the process, analyzed outcome, reviewed the article, photography, data collection, literature review, writing and preparation of manuscript, follow-up.

Hülya Çaşkurlu: Author took part in diagnosis, deciding treatment, took part in patient care, treatment, follow-up.

Dear Editor,

The novel coronavirus disease (COVID-19) first surfaced in the Chinese city of Wuhan on December 1, 2019 and quickly turned into a global issue. On March 11, 2020, the World Health Organization (WHO) declared this outbreak a pandemic.[1] COVID-19 can affect different organ systems, probably including the oral mucosa. Although cutaneous involvement has been defined for COVID-19, there are no studies that report oropharyngeal involvement. To the best of our knowledge, this is the first case report of oropharyngeal involvement in COVID-19 describing oral lesions in detail.

A 51-year-old male patient was admitted to with a sore throat. The patient was a family practitioner in contact with COVID-19 infected patient. Our subject's symptoms had started on March 18, 2020 in the form of fever, fatigue, severe dry cough, inability to taste or smell, and a sore throat, and the fever had reached its highest peak, 37.7 °C, 5 days after the onset of symptoms and lasted for 2 days. Two consecutive rapid COVID-19 antibody (IgM) tests performed 1 day apart came back positive. Based on these findings, the patient was diagnosed with COVID-19 and initiated on clarithromycin 500 mg b.i.d. PO immediately. The patient's chest radiography, leukocyte count, and vital findings were normal and the patient was isolated at home. The sore throat symptoms worsened 10 days after the onset of symptoms, and the oral examination revealed a largely erythematous surface in the oropharynx, and on the hard palate,

a few petechiae in the midline and numerous pustular enanthema near the soft palate border which were more prominent on the left side and ranged from 1-3 mm in diameter (Figure 1). The lesions resolved after a few days of antibiotherapy. The patient did not have a history of chronic diseases or drug use, and antibiotic treatment was discontinued after 7 days with the regression of cough and sore throat symptoms. On April 4, 2020, after 2 weeks of self-isolation, the patient underwent COVID-19 antibody tests and tested positive for both COVID-19 IgM and IgG. The PCR test from two days later resulted negative and all symptoms had improved, thus, the patient was removed from self-isolation at the end of 2 weeks.

Just like other viral infections, skin rashes were an expected symptom in COVID-19 infections and dermatologists tried to comprehend the cutaneous involvement in COVID-19 during this process.[2] Eventually, the skin lesions associated with COVID-19 were classified as maculopapular eruptions, acral areas of erythema with vesicles or pustules (pseudo-chilblain), other vesicular eruptions, urticarial lesions, and livedo or necrosis.[3,4] Since COVID-19 affects many organs and bodily systems, oropharyngeal involvement is also probable. However, there is a lack of information regarding mucosal involvement. The literature contains only one study that reports COVID-19 could present in the form of enanthema in several patients.[4] However, this study did not describe these subjects specifically in the context of enanthema, nor presented images. We provide the first description of the oral mucosal manifestation of COVID-19. This description indicates that the mucosal lesions are not just small enanthema, but are composed of diffuse oropharyngeal erythema, petechia, and pustule formation

We think that oral mucosal examination has been neglected during the pandemic on reasonable grounds, and therefore, there have not yet been any case reports. Just like other viral diseases,

oral mucosal involvement should be kept in mind as a potential symptom of COVID-19 infections and oral mucosal examination should not be neglected, provided that appropriate protective equipment is used. In addition, awareness regarding oropharyngeal involvement may prove useful in managing and recognizing patients.

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FIGURE LEGEND

Figure 1: a largely erythematous surface in the oropharynx, and on the hard palate, a few petechiae in the midline and numerous pustular enanthema near the soft palate border which were more prominent on the left side and ranged from 1-3 mm in diameter