

# Atypical oral presentation of SARS-CoV-2 infection: Case Report

## Abstract:

Hypogeusia, dysgeusia and ageusia are commonly prevalent and considered as the first recognized oral symptom of SARS-CoV-2 infection. Various other oral manifestations have also been reported in patients positive for SARS-CoV-2 infection. This article presents clinical presentation of oral lesions in two patients who were subsequently confirmed with SARS-CoV-2 infection.

## Introduction:

Novel coronavirus disease COVID-19 is caused by single stranded RNA virus, severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2). Various studies have reported that angiotensin-converting enzyme 2 (ACE 2) receptor is utilized by SARS-CoV-2 as its host receptor which is commonly found in the lung also in the kidney, gastrointestinal and epithelial surfaces of sweat glands, endothelia of dermal papillary vessels for host cell entry and further its replication.

Most common clinical manifestations include fever, headache, sore throat, dyspnea, dry cough, abdominal pain, vomiting and diarrhoea. Various other clinical signs such as cutaneous lesions, gastrointestinal manifestations have been reported which are considered as atypical manifestations. Hypogeusia, dysgeusia and ageusia are commonly prevalent and considered as the first recognized oral symptom of SARS-CoV-2 infection. Various other oral manifestations have now been reported in patients positive for SARS-CoV-2 infection such as ulcer, erosion, bulla, vesicle, pustule, fissured or depapillated tongue, macule, papule, plaque, pigmentation, halitosis, whitish areas, haemorrhagic crust, necrosis, petechia, swelling, erythema, spontaneous bleeding. Lack of oral manifestations was considered as a differentiating feature of SARS-CoV-2 infection during the beginning of the pandemic. <sup>(1-8)</sup>

This short article presents clinical presentation of oral lesions in two patients who were subsequently confirmed with SARS-CoV-2 infection.

## Case presentation:

Two female patients aged 45 years and 63 years visited the dental setup for routine dental checkup and oral prophylaxis. No manifestation of any underlying systemic/medical conditions were reported or observed. Oral examination of the patients revealed the following.

Patient A:

A healing ulcer with scuff covered area whitish area inflamed margin was visualized on the inner surface of lower lip, the edges of the ulcer were sloping.



Fig 1: Oral manifestation in Patient A

Patient B:

Ulcer on the distopalatal aspect of maxillary first molar was observed.

Both patients were totally asymptomatic. The teeth associated with near to the site of ulceration were sound without fracture lines or caries and old restorations. Medical history was non-contributory, there was no associated lymphadenopathy.



Fig 2: Oral manifestation in Patient B

Provisional Diagnoses: Aphthous ulcer secondary to SARS-CoV-2 infection was postulated

Main diagnoses: Healing ulcer

Diagnostic challenge: Patients were asymptomatic and did not present any of the classical or true symptoms of SARS-CoV-2 infection. The patients were not aware of any exposure to SARS-CoV-2 patients.

Diagnostic testing: Patients were tested for SARS-CoV-2 by RT-PCR. Both the asymptomatic patients tested positive for the virus. Referred to a physician.

Therapeutic intervention by the dentist: Patients were advised to apply Triamcinolone acetonide (Kenokart 0.1% w/w) ointment for symptomatic relief.

Follow up and outcome: Patients were recalled after 20 days. The patients furnished a negative RT-PCR report and the lesions had healed uneventfully.

#### **Conclusion:**

Oral epithelial cells have been proven to express ACE-2, hence the development of oral ulcers can be associated with SARS-CoV-2, since a disruption of oral epithelial cells occur in the instance of spread of virus to these cells. As was in the two cases presented above, patients do not frequently recognize and report oral signs and symptoms. Systemic symptoms were reported subsequently after five days in both patients. Detection and clinical identification of atypical oral signs and symptoms by dental practitioners may aid in recognizing early manifestations of the infection and referral of the patients especially asymptomatic cases for further investigations. Number of studies reporting various oral manifestation in SARS-CoV-2 infection has risen since end of 2020. These atypical manifestations could be the initial or only manifestation of the disease in some cases.<sup>(1-8)</sup> Rapid detection of the infection is crucial to humankind to control the spread of the disease.

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