Received: 23 June 2020 | Accepted: 6 August 2020

DOI: 10.1111/ijcp.13657

LETTER

EAR/NOSE/THROAT

THE INTERNATIONAL JOURNAL OF CLINICAL PRACTICE WILEY

Asymptomatic COVID-19 and saliva: Let's ask "Do you feel that saliva in your mouth had reduced in recent times?"

Dear Editor,

The world has begun adapting to "new normal" as a response to continued unsolved pandemic situations following to post-lock down. The most complex aspect in medical and dental practice during this pandemic environment is identifying asymptomatic COVID-19 individuals. Saliva-based research continuously states about the early detection of live SARS-COV2 pathogen.

Functional receptor for COVID-19 pathogen is ACE2 (Angiotensin Converting Enzyme) receptors which acts as a cellular entry site into host tissue.[1] Receptor-mediated virus entry is dependent on a serine protease, transmembrane serine protease 2 (TMPRSS).[2] The expression of ACE2 was identified by immunohistochemistry in the respiratory tract epithelium and duct epithelial cells of salivary gland (predominantly minor)[3] Ductal epithelial cells of salivary gland are early target cells of SARS-COV2 infection in upper respiratory tracts of Rhesus Macques.[4] Thus, early contamination of salivary gland duct epithelial cells will produce infected saliva. Hence, salivary gland becomes an early target and oral symptoms of COVID-19 may appear than lung lesion appears.[5]

Recent report mentioned that SARS-COV2 was detected in 91.7% of salivary samples in their study.[5] Thus it is an evidence that transmission of SARS-COV2 from asymptomatic individuals may originate from infected saliva. Another recent study focused on the detection of SARS-CO2 in both throat wash and saliva in early diagnosis, their findings indicated that high detection of SARS-COV2 in salivary samples before the development of lung lesions. SARS-COV2 in saliva was detected with a median of 4 days after disease onset.[6] Published evidence supports that oral mucosa serves an initial cellular level entry for SARS-CoV2 pathogen. The major oral symptoms in COVID-19 patients are dryness of mouth and loss of taste sensation.[7] Another study mentioned that dry mouth was observed in 46.3% and 47.2%.[8] Oral viral infections usually manifest as ulceration or blistering disease.[9] Another case mentioned recurrent oral ulcerations as symptom of COVID-19.

Len'D Cruz recently mentioned that Dentistry won't be back to normal for few years possibly.[10] Resuming dental practice during this COVID-19 pandemic should be accompanied with careful clinical interrogation. To identify asymptomatic patients. The nature of dental procedures which deals with aerosols carries risk for spread of infection. Although asymptomatic COVID-19 patients are hard to map in our clinical practice, the ray of hope could be the research findings from salivary tissues which is clinically related to "dry mouth." Dryness of mouth is a process which likely begins from reduced salivary flow and may be a precursor sign of dryness of mouth. Health practitioners should include the questions on the salivary system during patient communication. This includes: Does your mouth feel dry from recent times? or Do you feel that saliva in your mouth has reduced in recent times? However, care must be taken when a patient responds "yes" to any of the questions to verify underlying systemic conditions or drugs that are linked with salivary function. Xerostomia (complete dryness of mouth) requires detailed oral tissue examination, whereas reduced salivary flow can be evaluated by good history taking!

Respectfully,

Santosh AB, Isaac S, Kandamaran K, Reddy BVR

DISCLOSURES

None declared.

Arvind Babu Rajendra Santosh[1]

Isaac Susan Isaac[2]

Kandamaran Krishnamurthy[3]

Venkat Ramana Reddy Baddam[4]

[1]*School of Dentistry, Faculty of Medical Sciences, The University of the West Indies, Kingston, Jamaica*

[2]*Rishith's Dental Care Center, Bengaluru, Karnataka, India*

[3]*Pediatric Intensive Care, The Queen Elizabeth Hospital, Bridgetown, Barbados*

[4]*Department of Oral and Maxillofacial Pathology, SIBAR Institute of Dental Sciences, Guntur, Andhra Pradesh, India*

Correspondence

Arvind Babu Rajendra Santosh, School of Dentistry, Faculty of Medical Sciences, The University of the West Indies, Mona, Kingston, Jamaica.

Email: arvindbabu2001@gmail.com

ORCID

Arvind Babu Rajendra Santosh https://orcid.org/0000-0001-6587-8672

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