Letter to the Editor

Role of oral health during COVID-19

Sir,

Coronavirus disease 2019 (COVID-19) caused by novel coronavirus severe acute respiratory syndrome coronavirus 2 [SARS-Cov-2] has challenged the health care system worldwide. Currently, more than 43 million people are affected by this disease worldwide.[1] The risk factors known to develop complications of COVID-19 are age along with comorbidities like diabetes, hypertension, obesity, cardiovascular diseases, COPD, CKD etc. This same population is also at risk for developing oral diseases. Other known risk factors for oral diseases are smoking, alcohol consumption. Preliminary reports suggest that there may be a connection between SARS-CoV-2 infections and the microbial load in the oral cavity.[2] Yoon et al reported that SARS-CoV-2 viral load was consistently high in the saliva in the early stages of COVID-19.[3] Few studies report that oral hygiene interventions in patients with pneumonia have drastically improved clinical outcome.[4,5] Researchers also reported that improved oral care significantly reduces the incidence of ventilator-associated pneumonia in patients in an intensive care unit.[6] Thus oral health is extremely important in the current pandemic of COVID-19.

The oral microbiome includes bacteria, fungi, archaea, viruses, and protozoa.[7] Oral microbiome plays a great role in the maintenance of oral health. Saliva is known to promote oral health by maintaining a balanced oral microbiota. Poor oral hygiene is responsible for change in the oral microbiota into dysbiosis- microbial shift to diseases like periodontal disease. Chronic inflammatory diseases like diabetes are associated with dysbiosis.

Maintaining a balanced pH in the mouth is imperative for oral microbial environment. Thus, people consuming diet high in simple carbohydrates, diet rich in acidic food have a significant drop in oral pH. As a result, oral health promoting bacteria is significantly displaced. Healthy neutral pH tolerating oral bacteria thrives when fruits, green vegetables are consumed in abundance. This is because these contain polyphenol and fibre in high amounts which helps in the growth of healthy oral mirobiota. Arginine, which is found in saliva, is important for our oral health. Arginine can be found in nuts, soya beans, chickpeas and lentils. Simple sugars should be avoided as far as possible because oral bacteria convert simple sugars into acid, causing dysbiosis. Consumption of healthy fats like olive oil, ghee also promotes healthy oral microbiata.

Thus, incorporation of simple changes in our daily dietary lifestyle can help us to combat any infection including COVID-19. Oral microbiome is the first line of defence against any infections. Thus, oral health is of utmost importance in overall health of any individual. Therefore, as health professionals, good oral hygiene should be promoted as a public health intervention against the on-going pandemic.

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