

LETTER TO EDITOR

Oral health care for older adults during COVID-19 pandemic

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Introduction

Coronaviruses are a family of viruses identified in the 1960s (1). In December 2019 Chinese scientists and clinicians identified a new coronavirus, SARS-CoV-2 as the pathogen that causes the coronavirus disease 2019 (COVID19) (2, 3). Age is the most considerable risk factor for COVID-19 disease and its fatal clinical outcomes (4-6). Angiotensin-converting enzyme 2 (ACE2) receptors are the critical receptors for the pathogenesis of COVID-19(7). The virus has a high affinity to ACE2 receptors, which are expressed in alveolar cells in the lungs (3) A significant number of aged people have prescribed ACE2 inhibitors and angiotensin II receptor blockers to control hypertension, diabetes, and chronic kidney disease, therefore, these medications increase the risk of infection by SARS-CoV-2 (8). It has shown that ageing individuals with serious medical conditions are more susceptible to develop a severe illness due to COVID-19 infection than healthy individuals (9, 10). However, poor oral hygiene increases the risk of developing the same medical disorders. Thus, improving oral health in older people may decrease the morbidity of COVID-19 (10). Also this specific population is at risk for developing

severe complications related to COVID-19 (11, 12)

Due to the restrictions preventing the spread of COVID-19, oral health care provision for older adults has reduced considerably (13). Besides, older adults may have the fear of being exposed to dental aerosol-generating procedures (14). The reduction in access to dental care during this current pandemic may have considerable and lasting impacts (13). such as worsening oral health, triggering infections lead to local and systemic complications, and compromising general health (15). Oral health care has been stopped in most Long-term Care Facilities due to the recommended measures for isolation (16). Abrams et al. stated the necessity of special infection control in nursing homes during COVID-19 outbreaks (17).

The manifestations of covid-19 in geriatric patients might be severe difficulty in breathing, confused state of mind, bluish lips, and persistent pressure on the chest (15). Due to the weak immune system of geriatrics, dermatological manifestations may be helpful during screening. An irregular oral ulcer has been reported which was suspected to be the oral symptom for SARS-CoV-2 (18). A critical aspect of geriatric oral health care is

knowing reduced immunity and impaired healing capacity while managing COVID positive adults (15). Other manifestations of SARS-CoV-2 patients include myalgia, encephalopathy, encephalitis, necrotizing hemorrhagic encephalopathy, stroke, and epileptic seizures (19, 20). Mao et al. (21), reported 36% of the patients who experienced neurological symptoms, were older adults. As the dentists must use additional personal protective equipment during COVID-19 (22), it may develop challenges in patients who have a cognitive impairment, or dementia, because the use of this equipment makes communication difficult. For example, elderly people who have a hearing impairment, find it more difficult to understand a dentist who uses this equipment (23).

Sivaraman et al. (15) proposed five basic steps for effective screening, diagnosis, and treatment of aged patients in the COVID-19 pandemic. These steps are inducted through telephone, texting, or video calls before the patient arrives. In the first step, dentists document personal details and the chief complaint of the patients. In the next step, they should record, medical dental, and drug history. In the third step they evaluate special clinical manifestations of SARS-CoV-2 Infection. Then they present a treatment plan based on the chief complaint and necessity. In the last step, they mention recommendations before, during, and after dental treatment (15). The dental team must emphasize the

importance of oral hygiene to the older patient as a part of post-operative instructions (15).

Poor oral hygiene can increase the risk of acute respiratory distress syndrome, pneumonia, septic shock, sepsis, and death in COVID positive aged patients (24). Thus, improved oral hygiene and frequent professional oral health care reduce the progression or occurrence of respiratory diseases, especially in older people (25).

Two strategies can be used to deliver dental care to aged people during the current pandemic: (23) minimal intervention dentistry (MID)(26) and tele-dentistry (27). According to the restrictions during the pandemic, MID can become the low risk strategy for caring for dependent older adults (23). Tele-dentistry is a cost-effective approach to provide the oral care needs for the aged who have no access to care (28, 29). The oral health program including Oral Health Therapists (OHTs) and tele-dentistry can improve the oral health status of residents of nursing homes(30). In conclusion, MID and tele-dentistry can become the new standard way of care for pandemic dentistry for elderly people, including those with cognitive impairment and dementia (23).

Conflict of interest

Author declares no conflict of interest.

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