



The Management of Periodontitis Patients Should not be Postponed During the COVID-19 Era

Yuh Baba^{1*}, Keiso Takahashi² and Yasumasa Kato³

¹Department of General Clinical Medicine, Ohu University School of Dentistry, 31-1 Misumido Tomita-machi Koriyama City, Fukushima 963-8611, Japan

²Department of Conservative Dentistry, Ohu University School of Dentistry, 31-1 Misumido Tomita-machi Koriyama City, Fukushima 963-8611, Japan

³Department of Oral Function and Molecular Biology, Ohu University School of Dentistry, 31-1 Misumido Tomita-machi Koriyama City, Fukushima 963-8611, Japan

***Corresponding author:** Yuh Baba, Department of General Clinical Medicine, Ohu University School of Dentistry, 31-1 Misumido Tomita-machi Koriyama City, Fukushima 963-8611, Japan.

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Opinion

Recommendation for dental care during the COVID-19 pandemic was reported [1]. The authors present recommendations for (i) patient risk assessment, (ii) patient triage, and (iii) measures to prevent infection of health professionals and nosocomial transmission in dental clinics. With regard to patient triage, the authors classified dental treatments according to their emergency level. Their insistence consists of abscess drainage and tooth extraction due to acute pain as the “urgent level”, extraction of teeth due to chronic pain, pain from broken ortho-appliance, and so on the “as soon as possible level”, and finally, elective extraction and periodontal treatment as the “postpone level”. Among them, we have serious concerns about classifying elective periodontal treatment as the “postpone level”.

Patients with periodontal disease have an increasing risk in developing subsequent systemic diseases including diabetes, hypertension, cardiovascular disease (CVD), and cancer [2-5]. And, these all diseases are risk factors for severe conditions of COVID-19 such as acute respiratory distress syndrome (ARDS), thrombotic tendency, and myocardial injuries during COVID-19 infection [6-9]. Taken together, we have concerns about that COVID-19 positive patients with periodontal disease undergo these severe conditions if periodontal treatment is postponed. Indeed, Larvin, et al. [10] reported that COVID-19 positive patients with periodontal disease

have significant higher mortality compared to COVID-19 positive patients without periodontal disease [10]. Furthermore, Marouf, et al. [11] indicated that periodontitis was associated with COVID-19 complication including death, ICU admission and need for assisted ventilation, consequently concluding that chronic periodontitis aggravates mild cases of COVID-19 [11]. Increasing expression of angiotensin-converting enzyme 2 (ACE2) which is the host cellular receptor in respiratory epithelial cells and the aberrant secretion of proinflammatory cytokines such as interleukin (IL)-6 and IL-8 by periodontopathic bacteria, are considered as the mechanisms of severe COVID-19 by periodontitis [12]. Furthermore, Aquino-Martinez et al. stated that dissemination of periodontal bacteria into lung tissues may cause lipopolysaccharide-induced senescence, which facilitates SARS-CoV-2 cell attachment, entry, and replication [13].

Periodontal inflamed surface area (PISA) would be a useful marker to determine the patient triage and treatment regimen [14]. We think that periodontal treatment can be postponed for patients with low PISA values. On the other hand, when periodontal treatment is postponed for patients with intermediate or high PISA values who have also systemic diseases such as diabetes mellitus and CVD, we have the great concern that unchecked periodontitis can deteriorate the condition of COVID-19 if a person is infected with SARS-CoV-2.

Periodontitis is a chronic inflammatory disease initiated by infection with periodontopathic bacteria which cannot be treated successfully with acute management and requires long term intervention and maintenance. Furthermore, the treatment of periodontal disease during the COVID-19 pandemic may result in exposing dental practitioners and the general public to unnecessary viral transmission. However, we think that all doctors including dentist and physicians must resolve the concern that unchecked periodontitis can deteriorate the condition of COVID-19 if a person is infected with SARS-CoV-2 because the increase of the patients with severe COVID-19 can make the function of hospital admission insufficient.

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Conflict of Interest

No conflict of interest.

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