

# Telemedicine Approach for Oral Submucous Fibrosis in Coronavirus Disease-2019 Hot Spots

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Oral submucous fibrosis (OSF) is a betel quid habit associated with chronic debilitating disease of the oral cavity characterized by inflammation and progressive fibrosis of the oral and oropharyngeal submucosal tissues. It results in marked rigidity of the oral mucosa and an eventual decrease in the oral health-related quality of life due to the inability to open the mouth and burning sensation. In addition to significant morbidity, OSF has the highest malignant transformation rate and associated mortality.<sup>1</sup>

Among all the oral potentially malignant disorders, OSF was the most prevalent (4.96%; 95% CI = 2.28–8.62) pathology followed by leukoplakia (4.11%; 95% CI = 1.98–6.97). Due to the increase in betel quid consumption among the population, the prevalence rate for OSF is likely to increase in the near future. Since stage II and stage III are symptomatically more unbearable, the majority of these patients usually report to healthcare professionals at this stage. Despite the extensive research on pathogenesis and treatment, no standardized management protocol is still available and it varies from physician to physician.<sup>2</sup> Moreover, pharmacological therapies need to be given for longer periods to minimize the symptoms in stage I to stage III patients. As no promising modality is still proved for the complete cure of OSF, careful monitoring with regular follow-up of these patients is essential. This is of utmost importance due to the high malignant transformation rate of OSF.

With the coronavirus disease-2019 (COVID) pandemic, many of the healthcare professionals, institutions, and government agencies are paying the utmost attention to COVID-19 patients. As COVID-19 is highly contagious and can spread via respiratory droplets, healthcare professionals, particularly dentists, otolaryngologists, ophthalmologists, and head and neck surgeons, are at a high risk of infection.<sup>3</sup> As an effect of this and a lockdown, many of the patients who are already undergoing treatment for OSF find it difficult to reach to their healthcare professionals specialists for follow-up and treatment continuation. This is even more difficult for OSF patients residing in remote areas with limited healthcare facilities. Thus, there is a high probability of missing out on early detection of oral cancer in OSF patients leading to an advanced stage and poor prognosis. Although the whole world is going through COVID-19 pandemic, serious health concerns such as oral cancer cannot be overlooked at any cost. In the present paper, we have made an effort to discuss some of the options that can be potentially incorporated for the efficient delivery of health care in OSF patients.

- Opportunistic oral cancer screening: Recently, it has been suggested that opportunistic oral cancer screening can be performed while COVID-19 throat swab collection to help identify malignant lesions especially in high-risk patients, such as OSF and leukoplakia.<sup>4</sup> Although it seems a logical approach, it would address a very limited population that is visiting for

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check-ups and testing for COVID-19. Moreover, the availability of expert human resources for clinical diagnosis and management will be a major limitation for this kind of approach. In the current pandemic situation, it will be inappropriate to deviate the primary focus of COVID-19 testing and overburden frontline healthcare professionals who could be already under stress or depression.

- Mouth self-examination: Studies have shown that the self-mouth examination strategy works very efficiently in screening the large population for oral potentially malignant disorders (OPMDs) and oral cancer.<sup>5,6</sup> We believe that it would be an efficient tool for the early detection of oral cancer in OPMDs. However, this technique might not be effective for OSF patients due to limited mouth opening. This is especially true for stage III and IV patients where hindrance created by limited mouth opening interrupts thorough mouth self-examination.
- Instant messaging services: Due to affordability, smartphones are widely used and have become part and parcel of daily life. Instant messaging services such as WhatsApp have commonly used applications by the majority of the population. Even the youth in rural areas are accustomed to the usage of smartphones and many commonly available instant messaging services. We believe that these can be used by OSF patients also for effective

communication with their oral healthcare professionals. In this regard, WhatsApp has already been proved to be an efficient way of delivering telemedicine in various domains of dentistry such as oral pathology, oral medicine, oral surgery, etc.<sup>7,8</sup> During COVID-19 pandemic, telemedicine has gained special attention<sup>9</sup> and can serve as an effective alternative for patient education, diagnosis, and treatment of oral lesions.<sup>10</sup> At present, there is a sudden boom of online meetings in various sectors of life such as education, IT industry, banking, etc., and many companies are providing these platforms without any charges. We recommend the usage of the same in the healthcare profession. Thus, oral healthcare professionals can examine OSF patients virtually at frequent intervals and accordingly counsel and provide treatment to them as per requirement. We believe that the use of these approaches by patients and their oral healthcare professionals will definitely be an effective means for OSF management and will significantly decrease the chances of its malignant transformation as well as help in early detection of malignant changes.

In conclusion, considering the increasing prevalence of OSF and its higher malignant potential, oral healthcare professionals should employ newer approaches for continued management of OSF and to identify malignant changes, if any, at an early stage to reduce oral cancer burden.

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