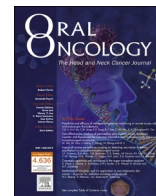




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Letter to the editor



Modalities to restrain the progression of oral potentially malignant diseases and oral squamous cell carcinoma in COVID-19 pandemic

Introduction

Presently the entire world is focused to the severe catastrophe of COVID-19 pandemic. However, other diseases like oral squamous cell carcinoma (OSCC) with significant mortality and morbidity continue to occur. Commonly OSCC is preceded by clinically identifiable oral potentially malignant diseases (OPMDs) [1]. Prevention and early detection are the paramount modalities for management of OPMDs and OSCC.

Challenges for screening of OPMDs and OSCC patients in COVID-19 pandemic scenario

Novel Corona Virus infection (COVID-19) is a highly contagious disease with rapid global spread since January 2020 and was declared as pandemic by World Health Organization [2]. Angiotensin Converting Enzyme 2 (ACE 2), has been identified as target receptor for COVID-19 virus entry into the host cells, being present on cell surfaces. ACE 2 has been reported to be present at various locations in the oral cavity and hence, oral cavity is considered as a potential site for the COVID 19 virus [3].

Most of the dental procedures increase the risk of contracting the viral infection through aerosols produced. In view of this in many countries including India, the elective dental procedures are suspended, leading to the closing of government and non government dental institutes as well as dental clinics. Consequently, the opportunities for screening of the oral cavity have been considerably interrupted, and accordingly diagnosis of OPMDs and OSCC has also been deferred. This further may affect delay in diagnosis and therefore progression of the disease. The clinical stage of OSCC may be advanced which result in reaching the patient from curative to palliative stage. Apart from this the psychological strain resultant to the COVID-19 outbreak possibly increases the indulging in indiscreet habits like alcoholism, smoking, tobacco chewing. This further enhances the menace of OPMDs.

Measures to face the challenges in COVID-19 pandemic scenario

There are number of diagnosed cases of OPMDs as well as OSCC whose data has been generally maintained in the clinical registry. Apart from the diagnosed cases, there are many patients who may miss the diagnosis of OPMDs in routine oral examination due to this pandemic scenario. The most common OPMDs are leukoplakia and oral submucous fibrosis (OSMF). Generally the OSMF patients are asymptomatic in the initial stage. Leukoplakias are also painless unless ulcerated. Thus mostly the diagnosis of OSMF and leukoplakia at initial stage is an incidental finding during routine dental checkup. In this scenario if these

patients miss the screening of oral cavity, the progression of the disease is inevitable. Similarly the patients of OSCC carry an unfortunate outcome if left untreated irrespective of the stage of the disease [4]. To combat such situation new approaches are desired for continuing care for this particular group of patients. In today's era of digital world, telecommunication/telemedicine is one of the best approaches to tackle the situation [5]. However in hospitals based in rural setup, the telecommunication measures for follow-up of patients are of limited application. To overcome these limitations in screening of OPMDs and OSCC patients, an alternative mechanism should be planned. As a first step, the analysis of the status of clinical registry of hospitals should be done. There may be severe decline of number of patients of OPMDs and OSCC in the clinical registry due to COVID-19. In view of these circumstances a structured module to improve the status of identification of new cases of OPMDs and survey the progression of previously diagnosed cases of OPMDs and OSCC should be prepared. To begin with, segregate the patients in three groups. The first group includes the patients having habit of tobacco and areca nut registered in tobacco cessation centre (TCC). Second group comprises the clinically and histopathologically diagnosed patients of OPMDs and in third group the patients of OSCC should be included. The data of patients of above three categories should be retrieved from clinical registry of hospitals. Further a team comprising of a dental surgeon, auxiliary health care providers like accredited social health activists (ASHA), social workers of the institute in association with faculty of preventive and health dentistry and a psychological counsellor should be prepared. The orientation regarding sensitization of the team pertaining to signs and symptoms of OPMDs and OSCC, modality of examination of oral cavity and reporting of clinical features should be planned. All the recommended measures as per protocol should be taken to reduce the risk for dissemination of infection of COVID 19 to the team members. Further the protocol including clinical indicators for diagnosis and progression of the disease should be formulated. For OSMF cases, the interincisal opening, presence of fibrotic bands on buccal, labial and palatal mucosa is considered key indicators for diagnosis and staging. Presence of non-scrapable white/red patch on mucous membrane is indicative of leukoplakia/erythroplakia. For the diagnosed cases of OPMDs, progression of the disease is indicated with the presence of ulcer, growth or ulceroproliferative growth on mucous membrane and reduced mouth opening. Thus the screening of the patients of all three groups should be planned as per the prescribed protocol. After screening the diagnosed patients of OSCC (group3) to be brought to Oncology department for further management with all precautionary measures. Schedule of follow-up visits for all the patients of habit of tobacco and areca nut (group1) and OPMDs (group 2) should be planned. This structured module may act as a game changer in this COVID-19 pandemic scenario

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for screening of OPMDs and OSCC patients for the benefit of entire mankind.

The consequences of COVID-19 pandemic are unpredictable and will be present for more months to year. Even after the resuming of all activities to normalcy, patients will be reluctant to visit doctors. Thus irrespective of the risk of infection in this COVID-19 pandemic, we cannot impede and must assure the best possible treatment modality for these patients which will be our paramount contribution in these times of uncertainty.

Conclusion

This information can provide an opportunity to direct the community, policymakers, health care providers and general practitioners in the future whenever an epidemic of a similar enormity takes place. Especially for healthcare professionals early detection of oral cancer is the foremost ethical accountability.

Authors contribution

Alka Hande: Study concepts, Study design. **Archana Sonone:** Data acquisition, Quality control of data and algorithms. **Amol Gadbail:** Data analysis and interpretation, Statistical analysis. **Madhuri Gawande:** Manuscript editing. **Swati Patil:** Manuscript review. **Preethi Sharma:** Manuscript preparation.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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