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LETTERS TO THE EDITOR

The impact of COVID-19 pandemic in Oral Medicine and Oral Pathology practice

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Outbreak of SARS-CoV-2

The ongoing outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) or 2019 novel coronavirus (2019-nCoV) infection was declared as a public health emergency of international concern by the World Health Organization (WHO) on 30th January 2020. However, the pandemic started in 2019 in the city of Wuhan, Hubei Province, China[1], and since then it has had consequences for health systems and the international economy[2]. Several measures to reduce the person-to-person transmission of COVID-19 have been taken by several countries to control the current outbreak[3]. The main measures being implemented differently by many countries around the world are the following: social distancing by closing public places as well as schools and universities[4], travel restrictions or block traffic outside of defined areas[2,4], quarantine of confirmed and possibly infected individuals and separation of persons with contagious diseases from the healthy ones, defined as isolation[5].

The epidemic of SARS-CoV-2 has become a great public health challenge in several countries around the world. Clinical activities are decreasing after implementation of measures to control the viral transmission, meaning that only dental care remains for urgent patients under the premise of suitable protection measures[6]. Reduced clinical activities can have diagnostic consequences, especially for cancer diagnosis, as an exponential increase in delayed diagnoses also increases in mortality rates[6].

Oral Cancer

The diagnosis of oral cancer is undoubtedly an urgent procedure in the context of oral medicine, due to its high incidence worldwide and the negative impact of prognosis and treatment's side effects on the quality of life, which is directly proportional to the diagnostic staging[6,7]. According to the Global Cancer Observatory, 371,638 new global cases of oral cancer will be diagnosed by the end of 2020,[8] including 15,000 cases in Brazil[7]. Thus, in this time of social distancing and lockdown, it has been recommended that elective health consultations be postponed as people avoid seeking care for diagnosis of oral lesions due to fear of contamination with SARS-CoV-2, and as a result, delays are expected and should be avoided[7]. Previous authors have already evaluated recommendations for oral cancer diagnosis in this 'new era' of dental practice.[6,9] However, other situations in oral medicine have a significant impact on the patients' quality of life, such as supportive care for cancer patients, severe cases of immune-mediated diseases, chronic orofacial pain and infectious lesions, all of which should be included in the list of urgent cases.

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Supportive care for cancer patients

Cancer patients undergoing radiotherapy and chemotherapy cannot drop out of their treatment because of the risk of having a negative impact on the prognosis. Similarly, collateral effects continue to affect this group of patients. Oral mucositis (OM) is a frequent complication causing important morbidity due to the pain associated with inflammation and ulcers in the oral mucosa[10], which can potentially compromise the patients' general health status as well as the oncological treatment itself. The multidisciplinary team must provide preventive and curative care continuously to minimize collateral effects and enable the patients to continue their treatment with reduced morbidity. Oral medicine experts play an important role in the control of OM as well as other oral manifestations related to antineoplastic therapy.

Hematopoietic stem cell transplant (HSCT) recipients are at an increased risk of different infections due to immunosuppression and the underlying disease. Respiratory viral infections are prevalent in the pre- and post-grafting periods[11]. Also, prolonged neutropenia and lymphopenia make HSCT recipients and patients with hematological malignancies highly vulnerable to high risk of viral infections with frequent oral manifestations[11]. Graft-versus-host disease (GVHD) is an important factor in the morbidity and mortality for these individuals and affects the oral cavity in up to 30 to 80% of cases. The dentist is usually part of the diagnosis and treatment of the disease. In this pandemic period, in which elective consultations are postponed, the capacity for constant surveillance of these oral manifestations is decreased. Therefore, there is a need for other surveillance strategies, to control immunosuppression, as well as other oral and systemic manifestations which might increase both morbidity and mortality.

Medication-related osteonecrosis of the jaws (MRONJ), is another complication associated with cancer patients[12]. The high rate of spontaneous bone exposure associated with bisphosphonates should also bring awareness to the need of constant surveillance of these patients as well. MRONJ is a serious complication whose management is difficult and thus prevention is the best approach. Patients who have active MRONJ must be monitored to avoid disease progression which would mean higher morbidity.

Immuno-mediated (painful oral) diseases

Immuno-mediated (painful oral) diseases remain relevant during a pandemic period because of the remarkable frequency of some symptomatic conditions in the oral medicine practice. This was evidenced by a systematic review of epidemiological from other countries and which was conducted in a Chilean specialized center[13]. Together with other less common conditions, such as mucous membranes pemphigoid and pemphigus vulgaris, they can cause extremely painful lesions affecting nutrition, oral hygiene and quality of life. Thus, these conditions can expose the individual to other risks, including hospitalization[14], which is currently undesirable. Furthermore, the clinical expression of these conditions can be modulated by patients' psychological state, being more frequently diagnosed in elderly[13,14]- a risk group associated with higher mortality by COVID-19. Moreover, elderly individuals are also psychologically affected by the social isolation, since they must follow such recommendations more strictly compared to other age groups.[6] Restrictions on elective treatments and fear of SARS-CoV-2 contamination, can also lead to an increase in self-medication, which is associated with higher risks of developing drug reactions, such as erythema multiforme.[15] Early diagnosis and adequate therapy reduce the possibility of worsening these diseases, thus improving the patient's quality of life, which justifies its urgency in oral medicine.

Infectious diseases

Some infectious diseases have oral manifestations as part of their cycle, so the dentist plays an essential role in the early diagnosis and treatment of these lesions. Infections affecting the oral mucosa can be fungal, viral or bacterial. Among those of fungal origins, deep fungal infections are a worldwide health problem because they are fatal and therefore their early diagnosis and treatment are essential[16]. We can mention aspergillosis, histoplasmosis and paracoccidioidomycosis as deep fungal infections[17]. Viral infection lesions can be extremely painful and debilitating, whether they are primary, secondary or recurrent lesions. Some of the common viral infections in the oral cavity are herpes simplex virus infection, herpes zoster virus infection and infectious mononucleosis[17]. Bacterial infections can be divided into odontogenic and non-odontogenic. In the last decade, there has been a significant increase in the severity of odontogenic infections[18], some of which being difficulty to diagnose and treat because they manifest as a chronic soft tissue swelling. Failure to diagnose these bacterial infections can result in treatment failure and chronicity[19]. The most common non-odontogenic infections in the oral cavity include tuberculosis and

syphilis[17]. In addition, it is important to distinguish odontogenic infections from non-odontogenic ones with oral manifestations to perform the appropriate treatment, thus reducing their mortality rate.

Oral care during the pandemic scenario:

During the COVID-19 pandemic virtual assistance using phone and video calls are an alternative for assisting the patient[6,7,9]. Tele-dentistry has become popular and used by health teams in order to optimize the workflow, reduce interpersonal contact and help prioritize urgent and high-risk cases[20]. This method should be optimized and used during this period as a tool for definition of cases of urgency or high risk which require early and face-to-face intervention to prevent disease progression and improve prognosis. Since each country has specific laws on this field of health care, revisions of these policies should be made as one of the governmental priorities. Each case must be evaluated individually by balancing the complaints and clinical signs to consider an appointment for diagnosis and treatment, especially because dentists are a highly exposed health professionals, since saliva is a fluid containing the virus[21] and antiseptic solutions do not eliminates the virus effectively. Considering the anamnesis and biosafety rules, many protocols for dental procedures are available in this period of pandemic. In addition, the interface with the support network for oral medicine (e.g. oral pathology and imaging laboratories and hospitals) might be affected at this time and this should be considered.

Radiographic examination plays an important role in oral diagnosis. The manipulation of the digital sensors used in intraoral radiography is a route of contamination from the patient's oral fluids. Therefore, the examiner's hands become contaminated by contact with the patient's saliva and then he or she touches the X-Rays cone, the exposure control knob and the timer switch.[22] An alternative for avoiding risks of contamination during the outbreak of COVID-19 is the use of panoramic radiography. The advantages of this technique are its simple operation and handling, which requires no contact with oral fluids[23].

The results of the study by Chen YM et al. (2004)[24] showed that almost two-thirds of the patients undergoing cancer treatment were afraid to enter a hospital for fear of acquiring SARS, with them dropping out of chemotherapy because of such concern.

Surveillance of cancer and transplant patients can be carried out by following a few steps, which includes contact with them before the appointment in order to reinforce oral self-examination and the investigation of manifestations arising from the state of immunosuppression or resulting from oncological and adjuvant treatments. Tele-consultation may be used in the case of complaints of any oral change reported by the patient, but always considering the accessibility to the Internet for both professional and patient.

To reduce the risk of exposure in the event of a necessary visit, a telephone call can be made the day before the scheduled appointment to track any new symptoms associated with COVID-19[25]. Within this context, the patient can be instructed to follow pre-established attitudes regarding COVID-19 in reference healthcare centers.

Oral medicine must find its way to provide care to patients during this pandemic to ensure that critical situations are adequately treated and followed up.

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