Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to the editor

COVID-19, head and neck cancer, and the need of training of health students and practitioners regarding to tobacco control and patient counseling

On March 11, 2020, the World Health Organization (WHO) decreed the COVID-19 pandemic, a disease caused by a novel RNA betacoronavirus (SARS-CoV-2). The COVID-19 pathogenesis is complex. In summary, the virus infects and replicates mainly in the epithelial cells of the respiratory mucosa. This peculiarity can lead to severe acute respiratory syndrome and death [1]. By the April 21th, 2020, there were more than 2.5 million of cases confirmed, with 177,000 deaths (https://coronavirus.jhu.edu/map.html).

Tobacco is an important risk factor for a number of diseases, such as cardiovascular disease, cancer, and chronic obstructive pulmonary disease. Recently, it has also been identified as a risk factor for complications associated with COVID-19. Exposure to tobacco smoke causes bronchopulmonary inflammation, increased permeability of respiratory epithelial cells, overproduction of mucus and impaired mucociliary clearance [1]. Tobacco consumption increases the expression of angiotensin-converting enzyme 2, which is a binding receptor for SARS-CoV2 virus [2]. A meta-analysis including 8 studies and 46,248 COVID-19 patients showed that cardiovascular and chronic respiratory diseases (highly associated to tobacco smoking) were the most prevalent comorbidities among the patients that had severe acute respiratory syndrome [3].

Analyzing the projection of the transmission dynamics of COVID-19, in the absence of an effective preventive measure, possibly there will be a need for intermittent or prolonged isolation and social distancing measures until 2022. Even in periods of apparent control of the pandemic, surveillance must be maintained, as the risk of a resurgence of new COVID-19 waves may be possible until 2024 [4]. The emergence of new respiratory diseases in the future, such as COVID-19, should also be considered at this time. Knowledge about host factors, especially preventable factors such as active and passive smoking, may be important in reducing the severity of the disease and, consequently, decreasing the number of deaths [1]. Tobacco-free policies must be maintained and strengthened. Moreover, the training of health students in relation to the perception, counseling and guidance of smoking patients can be crucial. Health professionals should be also able to discourage the emergence of new smokers [5].

Most head and neck cancers (HNC) are tobacco-induced. Particularly for oral cavity, although the current trends in oral squamous cell carcinoma (OSCC) indicate an increasing prevalence in young and non-smoker patients, most OSCC still occur in older smokers [6]. In former smokers, the risk for HNC have decreased after 1–4 years (OR 0.70) after smoking cessation. After 20 years of quitting smoking, the risk of oral and pharyngeal cancer was similar to that of never smokers [7]. At any time, smoking cessation is crucial. A large population-based study reveals that smoking at diagnosis was an independent prognostic factor for cancer-specific survival in HNC [8]. Considering the current global health crisis, concern about the COVID-19 pandemic may encourage smoking cessation, resulting in a greater number of patients who need counseling and guidance to quitting smoking. In this likely scenario, is health professional and students training, particularly dental and medical students, suitable to patients counseling for smoking cessation?

In 2005, The WHO, The Centers for Disease Control and Prevention in USA, and Canadian Public Health Association, developed and implemented the Global Health Professions Students Survey (GHPSS). Several countries have already applied this survey, pointing out that more than 80% of health students find that health professionals have a role in counseling patients about smoking cessation. However, less than 40% of students reported having received any formal training on tobacco cessation approaches and smoking counseling during their professional education [9]. Recently, we evidenced that 95.5% of dental students mentioned having knowledge about the harmful effects of tobacco during their training. However, only 22.5% received some training in counseling patients to quit smoking and approximately 50% never heard about smoking cessation programs [10]. In addition, training and continuing education of health professionals are essential. A systematic review and meta-analysis suggested that professionals who received training were more likely to assess smoking status, counseling their patients to quit smoking, when compared to untrained controls [5].

In summary, tobacco is a causative and/or modifying factor for the aggravation of several diseases, particularly the COVID-19. Moreover, after COVID-19 pandemic, the number of patients motivated to smoking cessation may increase, requiring suitable training of health practitioners. In addition, impact on survival and trends of tobacco-induced cancers may be expected, particularly HNC. Therefore, Universities and Health Professional Associations, especially Medical and Dental, should invest heavily in the training of health students in relation the perception, and smokers counseling. In this sense, efforts for continuing education actions are also essential for health practitioners.

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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