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Review Article

Main Considerations on the Oral Cancer: A Brief Review

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Abstract

The incidence of cancer has increased significantly worldwide, being one of the most important public health problems. Oral cancer has its multifactorial etiology, resulting from the interaction of intrinsic and extrinsic carcinogenic factors. The main risk factors for its development are: tobacco, alcohol, malnutrition, heredity, solar radiation and constant trauma. The literature shows the close correlation between cases of oral cancer and factors considered at risk, such as smoking and alcoholism, used alone and even more pronounced if both factors are associated with each other. Oral cancer is a disease that has a well-defined predilection, but can vary its epidemiology. It was noticed that oral cancer affects more males and has a preference for the white race after the 40 years of age.

Keywords: Oral Neoplasm; Oral Cavity; Diagnosis; Prognosis; Tabagism

Introduction

According to National Cancer Institute, a total of 16,290 new cases of oral cancer are estimated in Brazil in 2017, with 12,370 new cases of oral cavity cancer in men and 4,010 in women corresponding to an estimated risk of 11.54 cases new for every 100 thousand men and 3.92 for each 100 thousand women [1,2]. Currently, it can be considered a public health problem in developed and developing countries like Brazil and has been responsible for 13.0% of all causes of death worldwide [3].

The number of cancer cases has increased significantly worldwide, especially since the last century, and is currently one of the most important public health problems in the world [4]. Of all malignancies that affect the oral region, 94.0% correspond to oral squamous cell carcinoma (CCEO). CCEO is an aggressive malignant epithelial neoplasia, which mainly affects males. There is unanimity in the scientific literature regarding the language being the preferred location for the development of CCEO, followed by the floor of the mouth [5].

However, there is no consensus regarding the frequency of other anatomic sites. Cytopathology is a method based on the possibility of analyzing the cells collected from the lesions and interpreting, through light field microscopy, the stained smear obtained from the collected material [6].

Several studies address the importance of the dental surgeon in reducing oral cancer, with their participation in prevention, anticipation of diagnosis, treatment orientation and rehabilitation of patients. In this context, smoking is one of the main risk factors for oral cancer, becoming an important object for dentistry students and dental surgeons who are directly involved in the early diagnosis, treatment and orientation of patients [7-9].

Objective of the Study

The objective of the present study was to present a literature review to highlight the importance of early diagnosis and prognosis for treatment or prevention of oral cancer.

Methods

Experimental and clinical studies were included (case reports, retrospective, prospective and randomized trials) with qualitative and/or quantitative analysis. Initially, the key words were determined by searching the DeCS tool (Descriptors in Health Sciences, BIREME base) and later verified and validated by MeSh system (Medical Subject Headings, the US National Library of Medicine) in order to achieve consistent search.

Mesh Terms

The words were included "Oral Neoplasm", "Oral Cavity", "Diagnosis", "Prognosis" and tabagism. For further specification, the "Oral Neoplasm" description for refinement was added during

searches. The literature search was conducted through online databases: Pubmed, Periodicos.com and Google Scholar. It was stipulated deadline, and the related search covering all available literature on virtual libraries.

Series of Articles and Eligibility

A total of 56 articles were found involving temporomandibular dysfunction. Initially, it was held the exclusion existing title and duplications in accordance with the interest described this work. After this process, the summaries were evaluated and a new exclusion was held. A total of 25 articles were evaluated in full, and 15 were included and discussed in this study.

Literature Review

Oral cancer or oral carcinoma is a chronic, complex, multifactorial pathology resulting from the interaction of intrinsic and extrinsic factors that leads to imbalance in the process of cell proliferation and growth control [1-4,17].

The main risk factors for the development of oral tumors are smoking, alcohol, ethnicity, age, gender, genetic predisposition, solar radiation, diet, chronic trauma, poor oral hygiene, low carotene consumption, family history of Cancer, human papillomavirus, irritation caused by rough teeth, uneven surfaces in fillings, crowns or dentures against the tongue or cheekbones, microorganisms, and immune deficiency [3,17].

According to NCI, mouth cancer can develop in several places, with the tongue having the largest amount with 26.0% of all tumors followed by the lips with 23.0%, especially the lower floor of the mouth with 16.0% and the glands Salivary with 11.0% [14].

Tumors found in the mouth and throat are Leukoplakia and Erythroplasia. Leukoplakia is characterized by a whitish area and erythroplasia by a slightly raised red area, usually asymptomatic, which does not go away when the lesion is scraped [3]. These whitish or reddish areas may present with dysplasia or neoplasia. Leukoplakia is a benign condition and rarely develops into cancer. The finding may rule out the possibility of cancer. Only 25.0% of leukoplakias, when detected, involve precancerous changes that progress to cancer in 10 years if not treated properly. However in the case of erythroplakia, 70.0% to 95.0% of these lesions are cancerous at the time of initial biopsy or will progress to cancer [14].

More than 90.0% of cancers of the mouth and throat are from squamous cells, known as squamous cell carcinomas or squamous cell carcinomas. Squamous cells are flattened, from the lining of the oral cavity and throat. Squamous cell carcinoma begins as a set of abnormal squamous cells known as carcinoma in situ, present only in the cells of the lining layer the epithelium. In invasive squamous cell carcinoma, cancer cells have penetrated deeper layers of the oral cavity and oropharynx [3].

The main signs and symptoms are ulcers in the mouth that do not heal constant pain, persistent lump or thickening in the cheek, reddish or whitish area on the gums, tongue, tonsils or lining of the mouth, throat irritation or feeling of something stuck or pinched in the throat, difficulty in chewing and swallowing, paresis of the mandible or tongue, paresthesia of the tongue or other areas, jaw edema, loose or soft teeth in the gingiva, sialorrhea, trismus, bleeding, dysphonia, mandibular or teeth pain, persistent halitosis, nodules, Cervical lymphadenopathy and weight loss in the late stages [3,14,18].

According to Cimardi., *et al.* [11] the main reason that leads to low rate of early diagnosis is the low adherence of the dentist early diagnosis and referral of patients to the treatment of oral cancer in specialized units. Some conditions favor early diagnosis as knowledge of the groups at greater risk and the region of easy access to clinical examination, which does not require special equipment [11]. Deficiencies in professional training or continuing education are pointed as the main factors for the late diagnosis of oral cancer [11].

To better assist and assist patients in cancer treatment, the dental professional should be able to diagnose, prevent, control and treat the oral complications that arise during the various stages of cancer treatment. “Simple clinical attitudes such as oral hygiene, control of oral biofilm, use of specific mouthwashes, can prevent or ameliorate secondary manifestations in the mouth caused by cancer treatment [12-16].

The dentist’s exam consists of two fundamental steps. The first stage is the subjective one through anamnesis where it receives and collects information from the patient. It is important to listen actively to the patient’s report, not interrupting to be faithful in describing their reports of symptoms and records everything in medical records [8,9]. The dentist must promote an empathic interaction taking into account their personality and cultural level. The anamnesis should obey the following chronological identification of the patient, main complaint/duration, current history, hereditary antecedents, family situation, personal morbid antecedents, habits and vices [8,9].

After starting the second stage, the objective of confronting the subjective data offered by the patient with the findings to do so should be used in three techniques; Inspection, palpation and percussion. In addition, auscultation, olfactory, puncture, diascopy, surgical exploration, probing, scraping and photography may be used [8-10]. The visual inspection in the extra buccal examination evaluates all the components of the head, facies and neck comparing the sides of the face externally and evaluating the presence of bulges, edema, coloration, swelling, lumps, lesions that do not heal and among other signs [8-10].

On the palpation, it is possible to palpate the ganglionic chains, as well as to evaluate the temporomandibular joint, major salivary glands, bones and innervation [12]. In the intrabuccal physical examination, the patient should complete and perform the bidigital palpation by evaluating the fundus of the sulcus, alveolar mucosa, inserted gingiva, free gingiva, interdental gingiva, alveolar ridge, jugal mucosa, tongue, floor of the mouth, hard palate, soft palate and portion of the oropharynx [20].

The dentist can also perform an exfoliative cytology that despite being present 95.0% reliability does not replace the biopsy and harvesting puncture material [20]. The dentist can also carry out the collection of biopsy material that will serve as the final diagnosis because it is a complementary examination that can give greater credibility to the referral of the dentist, since the patient will already have examinations that corroborate the findings [13].

Thus, the oral examination is of paramount importance for early diagnosis and should be performed systematically and routinely in all patients regardless of the complaint, in order to look for indications of signs or symptoms characteristic of carcinoma in the early stages [9].

Conclusions

There are several risk factors (smoking, alcoholism, diet, genetic predisposition, traumatic factors and viral involvement) associated with oral cancer, however, tobacco and ethyl alcohol are the main risk factors involved. Due to the high number of smokers and alcoholics in the Brazilian population, oral cancer is a public health problem. Despite the decrease in smoking in recent years, smoking and, consequently, oral cancer continue to be a public health problem in Brazil, with a great negative impact on the quality of life of smokers and their families.

Conflict of Interests

There is no conflict of interest between authors.

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