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IMPORTANT CONSIDERATIONS ABOUT DENTIST SURGERY IN THE DIAGNOSIS OF ORAL CANCER

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ABSTRACT

Oral cancer or oral carcinoma is a chronic, complex, multifactorial pathology resulting from the interaction of intrinsic and extrinsic factors leading to imbalance in the process of cell proliferation and growth control. It is up to the dentist to detect early lesions or anomalies that may suggest a possible early stage cancer and refer the patient to referral referral and referral center of specialty dentistry. The time elapsed between the perception of symptoms, correct diagnosis and treatment interferes with the evolution and prognosis of cancer and also the quality of survival of patients. This study aims to analyze the late diagnostic consequences of oral carcinoma in the prognosis of the lesion. The main consequences of late diagnosis of oral carcinoma are delayed therapeutic treatment, increased treatment costs, increased patient suffering due to loss of function and mutilation, social rejection, poor quality of life, favorable prognosis reduction, decreased survival of the patient. In addition to damages to society. There is an urgent need for a course of improvement and training to prepare professionals to perform the diagnosis of oral cancer through accurate physical examination a procedure of the professional and that is part of their routine care.

INTRODUCTION

According to the National Cancer Institute (NCI), 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. Brazil ranks fifth in the world in the incidence of oral cancer with 80.0 % of the tumors being diagnosed at an advanced stage and only 20.0 % detected early during medical or dental examination (http://www.inca.gov.br/estimativa/2014/>. Acesso em 02-06-2017). According to NCI, cancer is the name given to a set of diseases that have in common the disordered growth of cells that become aggressive and uncontrollable, determining the formation of malignant tumors with consequent invasion of

tissues and organs (Zanotti *et al*., 2017; Abdo *et al*., 2003) . 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 (http://www.accamargo.org.br/tudo-sobre-o-cancer/boca-e-garganta/1/>. Acesso em 03-06-2017.). Among all cancers that affect the head and neck region, 40.0 % occur in the oral cavity (Bath-Balogh, 2012). Data from NCI showed that oral cancer occupies the fifth place of incidence among all types of cancer in men and the seventh among women, in Brazil, in a total of 14,120 new cases. Individuals, over 40 years of age, Have been the most affected by this disease, being the tongue and buccal floor the places of higher incidence. The aggressiveness of the lesion becomes even more evident as the diagnosis is made late, contributing to an unfavorable prognosis (http://www.accamargo.org.br/tudo-sobre-o-cancer/boca-e-garganta/1/>. Acesso em 03-06-2017; Bath-

Balogh, 2012; Brasil, 2004). The etiology of oral cancer is multifactorial, which includes endogenous factors, such as genetic predisposition, and exogenous environmental and behavioral factors, such as tobacco use, alcohol consumption, exposure to solar radiation, carcinogenic chemicals and some microorganisms. May result in the manifestation of the complaint (Brasil, 2006; Brener, 2007). Often, the individual searches for the first diagnosis the medical professional, who hardly considers, at the beginning, the hypothesis that the patient is affected of the carcinoma, impairing the immediate detection (Boraks, 2013). The dental surgeon is the initial link in the detection of oral lesions, since it is his competence to examine the oral cavity thoroughly. The inspection of all buccal structures, together with the palpation of lymph nodes of the head and neck region, represents a semi-technical resource of indisputable importance in the exploration of lesions that can affect the mouth. Such maneuvers can provide evidence of the presence of oral cancer, hence the importance of being developed with expertise by the dental surgeon, and should never be neglected (Campos *et al.*, 2007; Cunha, 2013; Cimardi, 2010; Falcão, 2010). It is important, in the context of the diagnosis of oral cancer, that the dentist knows how to identify lesions still in the initial stages and proceed with the referral of the patient. 8 As in many other cancers, early detection of oral cancer reduces the incidence of the disease and mortality , But statistics indicate that this type of tumor is being diagnosed in the early stages. Although studies found that health professionals somewhat neglect their oral cancer detection practices, studies also portray an audience lacking knowledge and practice of these neoplasms (http://www.inca.gov.br/estimativa/2014/>. Acesso em 02-06-2017). Currently, Dentistry comprises the prevention, early diagnosis and, not only, the curative treatment of oral diseases, thus deserving special attention of the dental surgeon 15. 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". 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 50 articles were found involving Oral Neoplasm. 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 20 were included and discussed in this study.

DEVELOPMENT AND DISCUSSION

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 (Oliveira, 2013). 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 (http://www.accamargo.org.br/tudo-sobre-o-cancer/boca-e-garganta/1/>. Acesso em 03-06-2017; Oliveira Oliveira, 2013). 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 % (http://www.inca.gov.br/ estimativa/ 2014/>. Acesso em 02-06-2017).

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 (http://www.accamargo.org.br/tudo-sobre-o-cancer/boca-e-garganta/1/>. Acesso em 03-06-2017.). 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 (http://www.inca.gov.br/estimativa/2014/>. Acesso em 02-06-2017). 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 (http://www.accamargo.org.br/tudo-sobre-o-cancer/boca-e-garganta/1/>. Acesso em 03-06-2017.).

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 (http://www.accamargo.org.br/tudo-sobre-o-cancer/boca-e-garganta/1/>. Acesso em 03-06-2017; http://www.inca.gov.br/estimativa/2014/>.

Table 1. Prognostic Indicators

Unfavorable prognostic indicators	Survival (SV) of 5 years for the following cases
• Primary tumors larger than 3.0 cm • Presence of cervical metastatic lymph node • Tumor recurrence • Perineural invasion • Mandibular Invasion • Histologically poorly differentiated lesions • Commissure injuries	• Tumors smaller than 02 cm: SV greater than 90.0 %; • Lymph nodes larger than 06 cm or metastatic bilaterally, or with perineural invasion: SV of 33.0 %. • Larger and involving tumors of the mandible: SV less than 50.0 %;

Source: Rapoport et al. [2001].

Acesso em 02-06-2017; Rapoport, 2001). According to Cimardi *et al.* (Cimardi *et al.*, 2010). 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 (Cimardi, 2010). Deficiencies in professional training or continuing education are pointed as the main factors for the late diagnosis of oral cancer (Cimardi, 2010). 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 (Dedivitis, 2004; Falcão, 2016; http://www.inca.gov.br/estimativa/2014/>. Acesso em 02-06-2017; Kowalski, 2001; Leite, 2005).

Methods of Diagnosis

It is up to the dentist to detect early lesions or anomalies that may suggest a possible cancer in the initial stage and refer the patient to referral and referral center of Odontological Specialty and from there to the services of high complexity depending on the demand of the case. 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 (Boraks, 2013). 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 (Boraks, 2013). 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 (Boraks, 2013). 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 (Boraks, 2013) .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 (Boraks, 2013). 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 (Boraks, 2013). The dentist can also perform an exfoliative cytology that despite being present 95.0 % reliability does not replace the biopsy and harvesting puncture material (Boraks, 2013). 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. 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 (Boraks, 2013). According to Rapoport *et al.* (2001) for the diagnosis, it is recommended that the physical examination be judicious and accurate. However, confirmation of the diagnostic confirmation can only be made through incisional biopsy and a chest X-ray are sufficient for diagnostic confirmation and staging. However, for tumors located near the mandible, a radiographic study of the bone is mandatory through panoramic radiography and computed tomography (Tromp, 2005; Woo, 2016).

Conclusion

The main consequences of late diagnosis of oral carcinoma are delayed therapeutic treatment, increased treatment costs, increased patient suffering due to loss of function and mutilation, social rejection, poor quality of life, favorable prognosis reduction, decreased survival of the patient. In addition to damages to society. Much of these consequences could be avoided if dentists performed the early diagnosis of pathology. There is an urgent need for a course of improvement and training to prepare professionals to perform the diagnosis of oral cancer through accurate physical examination a procedure of the professional and that is part of their routine care.

Conflict of interests

There is no conflict of interest between authors.

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