Brazilian Dental Science
Ciência Odontológica Brasileira
unesp
UNIVERSIDADE ESTADUAL PAULISTA "JÚLIO DE MESQUITA FILHO"
Instituto de Ciência e Tecnologia
Campus de São José dos Campos

ORIGINAL ARTICLE

doi: 10.14295/bds.2014.v17i3.983

Prevalence of oral lesions in elderly patients on oral cancer prevention campaigns in Paraná state Brazil 1989-2013

Prevalência de lesões orais em pacientes idosos atendidos em campanhas de prevenção de câncer bucal no estado do Paraná, Brasil entre 1989 - 2013

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ABSTRACT

Objective: recently, there has been a rapid aging process of the world population. Despite of a longer permanence of natural teeth and a reduction of oral diseases caused by the improvement of life conditions and the provision of health care, the prevalence of oral diseases in the elderly is still considered significant. Therefore, the aim of this study is to evaluate the epidemiological profile of elderly patients (above 60 years old) attended in 25 years of campaigns oral cancer prevention in the Paraná state, Brazil, between 1989 and 2013. **Material and Methods:** Patients, volunteers, were evaluated during 25 years of oral cancer prevention by the campaign team and all patients were evaluated in a methodical way with inspection of all intra-oral areas. **Results:** a total of 22,909 patients were attended during the 25 years of projects. Of these, 6,134 were older than 60 years old, with appearance of 1,523 oral lesions during the examination and 4,611 patients had no oral alterations during the dentist evaluation, among those were found injuries by traumatic origin, inflammatory lesions and others types of injury. **Conclusion:** it is clear the necessity for specialized care and active surveillance of these patients, since it is a consensus in the literature that the best treatment is early diagnosis. It is also necessary the development of epidemiological studies of the elderly population, which are scarce and difficult to elaboration of plans for effective action to meet the specific demands of this age group.

KEYWORDS

Oral cancer; Oral Examination; Oral Health; Elderly cancer.

RESUMO

Objetivo: a população mundial atualemente sofre com um rápido processo de envelhecimento. Apesar de uma maior permanência dos dentes naturais e da redução de doenças bucais causadas pela melhoria das condições de vida e da prestação de cuidados de saúde, a prevalência de doenças bucais em idosos ainda é considerado significativa. Portanto, o objetivo deste estudo é avaliar o perfil epidemiológico dos pacientes idosos (acima de 60 anos) que foram atendidos em 25 anos de campanhas de prevenção do câncer de boca no estado do Paraná, Brasil, entre 1989 e 2013. **Material e Métodos:** Os pacientes foram selecionados voluntariamente e avaliados durante 25 anos de prevenção de câncer bucal pela equipe participante, os quais foram avaliados de forma metódica com a inspeção de todas as áreas intra-orais. **Resultados:** um total de 22.909 pacientes foram atendidos durante os 25 anos de projetos. Destes, 6.134 tinham mais de 60 anos, com presença de 1.523 pacientes com lesões orais durante o exame e 4.611 pacientes sem alterações orais durante a avaliação do dentista. As lesões encontradas tinham origem traumática, inflamatórias e outras. **Conclusão:** é evidente a necessidade de atendimento especializado e da busca ativa desses pacientes, uma vez que é um consenso na literatura de que o melhor tratamento de lesões orais é o diagnóstico precoce. Também é necessário o desenvolvimento de estudos epidemiológicos da população idosa, que são escassos e difíceis de elaboração assim como a realização de planos de ação eficazes para atender às demandas específicas desta faixa etária.

PALAVRAS-CHAVE

Neoplasias Bucais; Diagnóstico Bucal; Saúde Bucal; Idoso.

INTRODUCTION

In recent decades, there has been a rapid aging process of the world population. Despite of a longer permanence of natural teeth and a reduction of oral diseases caused by the improvement of life conditions and the provision of health care, the prevalence of oral diseases in the elderly is still considered significant. [1]

On Brazil, the National Cancer Institute (INCA) estimated that during the year 2011, 14120 new cases of oral cancer would be recorded. For the Paraná State, in the same period, NCI estimated 1010 new cases of oral cancer. [2]

The major problem that involves oral cancer concerns the failure of early diagnosis [3], leading to sequels or even death. Therefore, the service of prevention in the oral cavity cancer and lesions may be useful to detect premalignant lesions and cancer lesions, favouring treatment before the onset of the disease and enabling a better quality of life from early diagnosis. [3,4]

The elderly is considered an individual with an age equal or higher than 65 years in developed countries, while prevalent in developing countries to reference 60 years, and are one age group with an increased incidence of a number of diseases. [5-7] Generally, the geriatric population constitutes a risk age group of disease and with limited access to oral health care due several factors, including economic, medical and psychosocial. [8] So, is justified an active search of several oral manifestations for rapid treatment and quality of life of the patient.

In this way, the aim of this study is to evaluate the epidemiological profile of elderly patients (above 60 years old) attended in 25 years of campaigns oral cancer prevention in the Paraná State, Brazil, between 1989 and 2013. Assessing the frequency of the most common lesions founded and compares them with world literature.

MATERIALS AND METHODS

Patients, volunteers, were evaluated during 25 years of oral cancer prevention campaigns in the Paraná State, Brazil, between 1989 and 2013 and approximately 400 municipalities in the state received the campaign team.

All patients were evaluated in a methodical way with inspection of all intra-oral areas, with wooden spatulas and appropriated lighting.

The patients evaluated in the campaigns were over 30 years of age, due to the epidemiological profile of oral lesions in Brazil, only patients over this age were submitted to evaluation. However, data in this work are related to patients over 60 years, for an epidemiological rating to the appearance of oral lesions in this age group.

A questionnaire with data relating to harmful health habits, family history of cancer, family income, frequency of visits to dentists and knowledge on the subject was applied.

RESULTS

After the analysis of the database of patients assisted by the campaign, it was found that a total of 22.909 patients were attended during the 25 years of projects. Therefore, this study selected all patients older than 60 years.

A total of 6.134 patients were older than 60 years old, with prevalence of 1.523 (24.8 %) oral lesions during the examination and 4.611 patients had no oral alterations during the dentist evaluation.

Regarding patients with oral lesions and gender, 50.65% were female and 49.35% were male.

Among the patients older than the 60 years evaluated 80.8% were Caucasians and others belong to others ethnics groups.

In analysis to the harmful health habits 20.5% were smokers, 16.7% were alcohol consumers and in 40.1% had the habit of using matte-chimarrão.

Taking into account the educational level found 57.1% patients with complete fist degree, 8.5% second degree, 5.9% with third degree completed and 28.6% were illiterate.

Oral hygiene and presence of lesion also were evaluated and it was found 0.75% of patients with excellent oral hygiene, 19.7% with satisfactory hygiene, poor hygiene in 40.7% and 38.8% with terrible oral hygiene.

The lesions were classified into groups, and the prevalence of lesions occurred thus: 14.2% cases of white lesions, 25.6% inflammatory lesions, 46.2% of traumatic origin, 0.9% malignant and 13.2% classified as other.

The final diagnosis of the lesions found in patients referred to the reference hospitals in the region cannot be assessed because there was no follow up from them.

The classification groups can be visualized in table 1. [Table 1]

Table 1 - Lesions found in each group

White lesions	Oral lichen planus
	Candidiasis
	Actinic keratosis
	Oral leukoplakia
Inflammatory	Candidiasis
	Median rhomboid glossitis
	Black hairy tongue
	Mucositis
	Papilloma
	Paracoccidioidomycosis
Traumatic	Denture hyperplasia
	Oral Fibroma
	Traumatic ulcers
	Torus palatinus and torus mandibularis
	Mucocele
	Ranula
Other	Hemangiomas
	Lymphangiomas
	Pyogenic granulomas
	Amalgam tattoo
	Hyposalivation

DISCUSSION

Epidemiological studies add up a large area of scientific research, play an important role because they reveal the prevalence and incidence of several diseases, and particularize their distribution according to specific characteristics of the environment where they are being analysed, especially in elderly people. Several studies were conducted in order to determine the frequency of oral lesions in different geographic regions in the world and different age groups. [9,16,18] In comparative analysis of the mentioned papers an expressive difference of prevalence of lesions was noted, for more or less, that may be explained due to different public policies of each national region, cultural and social habits, presence or not of prevention of oral lesions to population, that make more markedly in an international analysis.

Despite the remarkable developments, oral pathology remains a relevant public health problem in developed countries, with significant growth in developing countries. Although the information on the condition of oral health in these countries is scarce, the data show existing inequalities between countries and within each country, because of different living conditions and access to health services as well as the differences between urban and rural areas. [1,15,17]

Our results showed a high prevalence of oral mucosal lesions among older patients (24.8%), which emphasizes the importance of routine examination of the oral mucosa, particularly in elderly people. [9]. Therefore, this is a fact that if isolated is impossible to be compared with works already published in national and international literature. This is explained due the epidemiological profile of existing references, which generally have specific elderly population, as seniors with use of prostheses or this age group diagnosed with HIV.

In general, the clinical appearance of the oral mucosa in the elderly is not different from that observed in young. According to Rossi et al. [18] changes can appear of the oral mucosa due to trauma situations, pathology, oral habits or dysfunction of the salivary glands. For other authors [19-21], the development of certain conditions of the oral mucosa may also be affected by medications, socioeconomic level,

ultra-violet radiation, alcohol and tobacco and condition of oral hygiene and denture. Denture use, as well their quality, is repeatedly associated with the presence of oral lesions. [18] In our study, it was possible to observe an elevated rate of oral lesions in patients with low level of education or illiterates. Oral hygiene was also evaluated and it was noted that approximately 79.55% of patients with oral lesions had poor or terrible oral hygiene. Such data corroborate world literature and make clear the relationship of oral hygiene with the presence of oral diseases. [4-6]

Regarding the gender variables, 50.65% were female and 49.35% were male, not corroborating previous research, in which the female is the most affected by oral lesions. [11,12] This may be justified because the researches does not compare elderly people only, is compares population in all ages groups. However no statistical analyses could be done due the different epidemiologic pattern.

Santos et al [22] say that most patients who are alcohol and tobacco consumers are more likely to develop oral lesions, especially cancer, and a higher number of women with history of the disease with no experience to smoking and / or alcohol. This may be justified by changes in the social habits and the important role of HPV in carcinogenesis. Our data were limited in relation to patients with presence of malignant lesions, only 0.9%, but compared at the alcohol consumers and smokers patients data we cannot classify them as patients with higher chances of developing other oral lesions. Our study showed approximately 25% of the sample with harmful habits as use of alcohol and tobacco, which corresponds numerically to the total number of lesions found in all elderly patients. The authors believe that this fact occurs because the etiology of several manifestations of oral lesions, some of traumatic origin and others by genetic etiology, some viral, fungal or bacterial, and also by the individual presents various individual and multi factorial characteristics as oral hygiene, educational level, presence of dentures and even the frequency visits to the dentist.

There is a wide variety of oral mucosa conditions described in the elderly population in need of distinct treatment depending on injury, the country, geographic region, or even the degree of functionality of the individual. Among these, some are more prevalent in prostheses users and other are presented if associated with other causes. Generally, the oral mucosa conditions described in elderly are acquired, which can be prevented and majority are benign, some of these may become malignant if any local or systemic predisposing factors. [1]

Denture stomatitis, fibroepithelial hyperplasia, traumatic ulcers and angular cheilitis are lesion recurring and fairly present lesions in elderly patients, usually associated with some patients' habit or systemic condition. [1]. Premalignant lesions are relatively common among the elderly and are associated with lower socioeconomic and educational levels. [23,24]. Oral leukoplakia and lichen planus are the most reported premalignant and potentially malignant disorder lesions [25-27], and in our study these diseases were classified in one group that occur approximately 15% of all population. Premalignant and malignant lesions of the oral cavity are of particular interest in the elderly, because their incidence rate is higher than in young individuals, increasing with age. [28]

CONCLUSION

We conclude that it was possible to evaluate the presence of oral lesions in elderly patients who would not be diagnosed without prevention campaigns in the State. Through this, it is pointed out the importance of active surveillance of these patients and education of the population regarding the health problems and the evaluation of oral condition periodically. The presence of systemic diseases and frequent medications among the elderly, besides the possible co-existence of several risk factors, affect significantly the development of oral diseases, not just cancer, bringing lower quality of life and the necessity of health care with greater frequency and urgency. It is also necessary the development of epidemiological studies of

the elderly population, which are scarce and difficult to elaborate plans for effective action to meet the specific demands of this age group. In consequence of the heterogeneity of the elderly population, improving oral health and primary health care are primordial and immediate actions to the attendance of the elderly population.

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Date submitted: 2014 Mar 27

Accept submission: 2014 Jun 30