

# ANALYSIS OF THE PROFILE OF PATIENTS WITH ORAL CAVITY NEOPLASIA

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**Abstract:** Objective: To describe the profile of patients with oral cavity cancer from 2015 to 2019 in Montes Claros, Minas Gerais State, Brazil. Methods: this is a descriptive study with a quantitative approach using data from patients living in Montes Claros, Minas Gerais, Brazil, diagnosed with oral cavity neoplasia in the hospital records of the José Alencar Gomes da Silva National Cancer Institute (INCA). Results and discussion: In the historical series analyzed, 312 cases of oral cavity neoplasia were identified among patients living in the analyzed region. Conclusion: the patients who were diagnosed with oral cavity cancer were mostly men aged between 50 and 69 years, and the association between the concomitant use of tobacco and alcoholic beverages was present in the vast majority of cases. Efforts are needed by health professionals and managers for early diagnosis through educational and primary prevention actions.

**Keywords:** Cancer. Oral neoplasms. Prevention.

## INTRODUCTION

Oral cavity cancer is considered an important public health problem, with more than 24 million new cases of the disease estimated in the world in 2030<sup>1</sup>. In the world ranking, Brazil has the eighth highest incidence of this neoplasm<sup>1</sup>, with 15,210 new cases of the disease expected for each year of the 2020-2022 triennium, representing an estimated risk of 10.70 and 3.71 new cases per 100 thousand inhabitants, respectively, for Brazilian men and women (INCA, 2019).

Although the disease is more frequent in individuals from the fourth decade of life, it tends to

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increase its incidence in young adults (Hussein AA et al, 2017). The most common histological type – squamous cell carcinoma (SCC) – is of multifactorial etiology, and is frequently related, to varying degrees, to tobacco and alcohol consumption, exposure to biological agents, especially the human papillomavirus (HPV), associated or not with genetic susceptibility, in cases of oral cavity cancer in young adults (Vargas LS et al, 2017).

Based on the finding that oral cancer is a public health problem, it is important to know its magnitude in Brazil, with regard to the geographic distribution with stratification by age and gender, as a basis to support its control. The dissemination of statistical data is necessary both to know the national picture and to encourage health professionals to work in the prevention and diagnosis of oral cancer (Tavares C et al, 2016).

Taking into account the growth and aging of the population, as well as industrialization and urbanization, aggravated by inadequate coverage of health services, it is evident that there is a need to change the strategy for controlling non-communicable diseases, combining preventive actions to promote and protect health and diagnostic measures, especially those of early diagnosis and therapy (D’Cruz et al, 2018). Thus, the present study sought to describe the profile of patients with oral cavity cancer from 2015 to 2019 in Montes Claros, Minas Gerais State, Brazil.

## **MATERIALS AND METHODS**

A descriptive study with a quantitative approach was conducted. Clinical data of patients diagnosed with oral cavity cancer in the hospital records database of the José Alencar Gomes da Silva National Cancer Institute (INCA) were analyzed.

Hospital Cancer Registries (HCR) gather information on patients treated at the hospital where they received diagnosis and/or treatment for cancer; they serve as a subsidy for reflection on the performance of the clinical team; assist in administrative planning; in addition to serving as a mirror of the patient’s condition, the measures taken and his survival. With legal support, the implementation



and maintenance of a HCR are used as a criterion for the accreditation of a hospital in the Brazilian Oncology Care Network, so that all Brazilian states have at least one hospital qualified in oncology (INCA, 2012).

The study was carried out during the months of January and February 2024. It should be noted that the data for the years 2015 to 2019 were evaluated because they are the most current available in the INCA secondary database.

The eligibility criteria were available in the database, and incomplete records were excluded. A data collection instrument developed by the authors was used with the following variables: year, use of tobacco or tobacco products, family history, alcoholism, sex, age, color, histological type, TNM staging, and primary location.

Since the analyzed data are available in a public database, it was not necessary to request authorization from a Research Ethics Committee, according to resolution number 466 of December 12, 2012 (Brasil, 2013).

## **FINDINGS**

In the analysis from 2015 to 2019, 312 diagnoses of oral cavity cancer were recorded in the municipality investigated. 17.2% of the individuals were female, while 82.8% were men, the predominant age was between 50 and 69 years (55.6%), and the family history of cancer was negative in 37.7% of the cases. 48.4% of the patients used tobacco and tobacco products, and the combined use of tobacco and alcoholic beverages was present in 83.4 of the records. Regarding the clinical-pathological variables, a significant rate corresponded to squamous cell carcinoma (97.4%), with the TNM staging classified as 4 A (46.4%) more frequently and with primary location in the tongue or base of the tongue (51.7%) (Table 1).



Table 1. Descriptive analysis of the sociodemographic and clinical characteristics of patients with oral cavity cancer, Montes Claros, Minas Gerais, Brazil (n=312).

Variable	N	% total
<b>Gender</b>		
Male	258	82,8
Female	54	17,2
<b>Age group</b>		
30-59	139	44,9
50-69	173	55,6
<b>History of smoking</b>		
Former consumer	56	64,3
Never	26	29,8
Current	5	48,4
<b>Family history of cancer</b>		
No	117	37,7
Yes	195	79,3
<b>Combined use of tobacco and alcohol</b>		
Yes	260	83,4
No	52	16,6
<b>Detailed primary location</b>		
Base of the tongue	161	51,7
Other	151	48,3
<b>Histological type</b>		
Squamous cell carcinoma	303	97,4
Other	9	2,6
<b>TNM Staging</b>		
A4	144	46,4
Other	168	53,6

Legend: Cir: surgery, Qt: chemotherapy, Rxt: radiotherapy.

## DISCUSSION

In this study, the profile of patients with oral cavity neoplasm was evaluated, in this sense, a well-known pattern was identified in the literature regarding this type of cancer, thus, there was a significant association between age, alcohol and tobacco consumption, in addition to a well-defined



location at the base of the tongue.

The main sign of this type of cancer is the appearance of mouth ulcers that do not heal within a week. Other signs are superficial ulcerations less than 2 cm in diameter and painless, which may or may not bleed, and whitish or reddish spots and plaques on the lips or oral mucosa. Difficulty speaking, chewing, and swallowing, in addition to marked weight loss, pain, and the presence of cervical lymph node enlargement are signs of advanced oral cancer (MS, 2024).

In 1976, Krolls, Hoffman<sup>16</sup> published an analysis of 14,253 cases of squamous cell carcinomas, finding 42% on the lips, 22% on the tongue, 17% on the floor of the mouth, 6% on the gums, 5% on the palate and 2% on the jugal mucosa. As for gender, 93% correspond to males and only 7% to females. Regarding race, 92.6% were Caucasian and 5.2% melanoderma. Regarding age, 86.8% of the cases were between the fifth and ninth decades of life.

Squamous cell carcinoma of the oral cavity is the result of the interrelationship of three factors: the agent, the host, and the environment. Thus, a considerable number of factors related to the human host and the environment in which it lives may be related to the predisposition to malignant neoplasms (Garrafa, 1977). Two points should be emphasized in relation to risk factors: first, the same factor may be a risk factor for several diseases and second, that several risk factors may be involved in the genesis of the same disease, constituting multiple causal agents. The study of risk factors, isolated or combined, has allowed the establishment of cause-effect relationships between them and certain types of cancer (MS, 2024).

Most cancer cases (80%) are related to the environment, in which we find a large number of risk factors. The environment is understood as the environment in general (water, land and air), the occupational environment (chemical industries and the like), the consumption environment (food, medicines), the social and cultural environment (lifestyle and lifestyle habits) (MS, 2024). For Tommasi (1982), whatever the cause of cancer, especially in the mouth, it begins on previous lesions caused by local causes associated with general causes. These lesions are considered cancerous.

The histopathological classification of oral cancer has been shown to be an important tool



to try to explain the biological behavior of oral tumors. Thus, in 1941, Broders (1941) proposed a histopathological grading of four grades, based on the degree of cell differentiation of neoplastic cells, with grade I up to 75% of differentiated cells, grade II 75 to 50% of differentiated cells, grade III of 50 to 25% of differentiated cells, and grade IV of 25 to 0% of differentiation. In 2005, based on Broders' principles, the WHO proposed the classification most used today, consisting of three categories: poorly differentiated cells - predominance of immature cells, numerous typical and atypical mitoses, and minimal keratinization; moderately differentiated cells - a certain degree of nuclear pleomorphism and mitotic activity and little keratinization; and well-differentiated cells - tissue architecture similar to the normal pattern of the squamous epithelium (Broders, 1941).

The most frequent malignant neoplasm of the oral cavity is squamous cell carcinoma, also known as squamous cell carcinoma or squamous cell carcinoma, which is responsible for 90 to 95% of oral cancer cases. Among the less frequent are: melanoma, lymphoma, and Kaposi's sarcoma. (Kaposi, 2020). Squamous cell carcinoma can develop anywhere in the mouth. The most common sites are the tongue, lower lip, and oral floor, the latter two being related to a worse prognosis due to the frequent presence of cervical metastases. Its incidence varies in different regions of Brazil and the world, making it important to know its epidemiological and pathogenic profile in order to guide public health actions in the prevention of this disease (Brener et al, 2007).

The problem involving oral cavity tumors is considered a public health problem in Brazil and in several countries around the world, implying the recognition that early diagnosis and emergency care represent a form of prevention and a means of increasing survival, where dentists play a fundamental role, not only in making the diagnosis, but also in making the diagnosis. but also for the preservation of cases. Thus, the primary intervention of physicians and dentists in prevention programs, including educational lectures regarding risk factors and the importance of oral cavity self-examination with the participation of the community and the media, is extremely important in the control of oral cancer (Bercht, 1998).



## CONCLUSION

The clinical information included in the hospital records database of the José Alencar Gomes da Silva National Cancer Institute (INCA) about patients diagnosed with oral cavity cancer living in Montes Claros, Minas Gerais, indicate male individuals with a predominant age between 50 and 69 years and no positive family history of cancer.

The combined use of alcohol and tobacco was present to a large extent, the cancer clinic was advanced in the degree of carcinogenesis. In this context, it is pointed out that efforts by health professionals and managers are needed for early diagnosis through educational and primary prevention actions.

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