

Original Research Article

Demographic and stomatological profiles of patients at the Instituto de Saúde de Nova Friburgo

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Abstract

Introduction: Epidemiological studies are essential, since through them it is possible to formulate a clinical profile, to determine the prevalence and incidence of lesions, as well as characterizing particularities specific to the environment where such tasks are performed. **Objective:** To perform an epidemiological survey of the main oral lesions diagnosed at the Stomatology Outpatient Clinic of the Instituto de Saúde de Nova Friburgo ISNF/UFF, drawing a demographic and clinical profile. **Material and methods:** A retrospective and observational study, conducted with data collection in the medical records of patients treated at the stomatology service in 2018. The information collected were gender, skin color, age, locality, occupation, income, schooling, and oral injury. **Results:** Data were collected from 150 patients, 93 (62%) women, 79 (53%) white, aged between 2 and 94 years, mean age of 53 years, 124 (83%) from the downtown of Nova Friburgo, 32 (21%) retired, 30 (22%) received a minimum wage and 42 (28%) incomplete middle school. Regarding oral lesions, 38 (25%) patients had actinic cheilitis, 18 (12%) prosthetic stomatitis and 5 (3%) oral cancer. **Conclusion:** Middle-aged women sought the outpatient clinic more frequently, and some lesions, if diagnosed early, especially actinic cheilitis, may prevent oral cancer.

Introduction

Stomatology plays an important role in the identification of oral lesions, allowing correct diagnosis and more appropriate treatment [21]. A careful anamnesis associated with thorough physical examination is extremely important for the proper diagnosis, planning and determination of the best clinical approach [21]. Epidemiological studies are extremely important to determine the prevalence of injuries and may characterize particularities specific to the environment where they are conducted, enabling adequate planning, treatments, and prevention strategies [8, 23]. We can also emphasize the importance of early diagnosis, improving the prognosis of the lesion, with more effective results, better survival, and quality of life of patients, benefiting them directly [22].

However, although the World Health Organization (WHO) recommends epidemiological studies on oral lesions, works in this segment are scarce, especially when compared to studies on dental caries and periodontics [11, 14]. Thus, this study sought to carry out a survey of the most frequent oral lesions in a Stomatology Outpatient Clinic, to outline an epidemiological and clinical profile.

Material and methods

Retrospective and observational research, with a sample formed by the medical records of patients treated at the Stomatology Outpatient Clinic of the Instituto de Saúde de Nova Friburgo (ISNF), in 2018. Demographic and clinical data collected from medical records comprised gender, age, skin color, income, education, habits, main complaint, diagnosis, place of injury and clinical approach. Lesions requiring diagnostic confirmation were included in the study based on the histopathological report. The information obtained was stored in a database (Microsoft Office Excel). Descriptive analysis of the studied variables was conducted using proportions (when variables were categorical) and means, standard deviations, minimum-maximum values, mode, and medians (when variables were numerical). The research was approved by the Research Ethics Committee of the Universidade Federal Fluminense - Instituto de Saúde de Nova Friburgo, under opinion number 3.446.252 and CAAE 12736919.4.0000.5626.

Results

The sample consisted of 150 medical records, where the age ranged from two to 94 years, with a mean age of 53 (SD=18 years) years. The most prevalent age groups were the fifth and sixth decades of life with 37 (25%) patients. Regarding gender, 93 (62%) patients were women and 79 (53%) were white (Table 1). Most patients, 124 (83%) lived in Nova Friburgo and 42 (28%) had only incomplete middle school. The average income was R\$ 2,037.18, of which 31 (21%) had one minimum wage (table I).

Table I - Description of the sample's demographic data

Parameter	Category	N	%
Gender	Female	93	62
	Male	57	38
Skin color	White	79	53
	Mixed race	12	8
	Black	9	6
	Not informed	59	33
Locality	Nova Friburgo	124	83
	Adjacent municipalities	22	15
	Others	2	1
Education Level	Incomplete Middle school	42	28
	Complete Middle school	9	6
	Incomplete High school	12	8
	Complete High school	21	14
	Complete Higher education	7	5
	Illiterate	2	1
Income range	Not informed	57	38
	Up to one minimum wage	31	21
	Up to two minimum wages	28	19
	Up to three minimum wages	10	7
	>4 minimum wages	8	5
Age	Not informed	72	48
	>20 years old	9	6
	21 to 30	6	4
	31 to 40	11	7
	41 to 50	24	16
	51 to 60	37	25
	61 to 70	28	19
>71 years old	22	15	

Regarding occupations, we observed 42 distinct occupations and retirees with 32 (21%) being the most prevalent, followed by housewives 19 (13%) and farmers 15 (10%) (table II). Regarding the main complaints, 29 different complaints were found, and the search for dental treatment was the most frequent with 35 (23%) of the complaints. Regarding habits, 90 (60%) patients did not report habits (table II).

Table II - Description of occupation, habits, and main complaint of patients

Parameter	Category	N	%
Occupation	Retired	32	21
	Housewife	19	13
	Farmer	15	10
	Student	11	7
	Seamstress	6	4
	Unemployed	4	3
	Domestic worker	5	3
	Not informed	10	7
Habits	Others	48	32
	Ex-smoker	32	21
	Smoker	18	12
	Smoker and alcoholic	3	2
	Alcoholic	2	1
	Marijuana User	4	3
	Cocaine User	2	1
	Nail Biting	3	2
Main complaint	Treating the teeth	35	23
	Wound	15	10
	Prosthetic needs	14	9
	Volume increase	12	8
	Round lesion	11	7
	Lesion	12	8
	Dry Lip	9	6
	Discomfort	6	4
	Dry mouth sensation	6	4
	Inflammation in the teeth	6	4
	Burning lip	6	4
	Burning tongue	6	4
	White lesion	4	3
	Actinic cheilitis	4	3
Others	23	15	

Regarding the prevalence of oral lesions, a total of 50 (33%) lesions were obtained, the most found lesion was actinic cheilitis, with 38 (25%) (table III).

Table III - Definitive diagnosis

Diagnosis	N	%
Actinic queilitis	38	25
Prosthetic stomatitis	16	11
Candidiasis	7	5
Fibrous hyperplasia	6	4
Squamous cell carcinoma	6	4
Inflammatory fibrous hyperplasia	4	3
Mucocele	4	3
Leucoplakia	4	3
Angular cheilitis	3	2
Incomplete Traumatic ulcer	2	1
Hemangioma	2	1
Herpes	2	1
Periapical cyst	2	1
Sjögren Syndrome	2	1
Papilloma	2	1
Solitary fibrous tumor	2	1
Reactional lymph node Sialadenitis	2	1
Neurofibromatosis type I	1	1
Dentigerous cyst	1	1
Lipoma	1	1
Nonspecific inflammatory process	1	1
Chemical Injury	1	1
Eruption hematoma	1	1
Traumatic Keratosis	1	1
Ameloblastoma	1	1
Vascular lesion	1	1
Florid cemento-osseous dysplasia	1	1
Nevus	1	1
Osteomyelitis	1	1
Exostosis	1	1
Hyperkeratosis	1	1
Benign fibro osseous lesion	1	1
Pemphigus vulgaris	1	1
Oral lichen planus	1	1
Paresthesia	1	1
Chemical burn	1	1
Osteonecrosis	1	1
Verruca vulgaris	1	1
Mucositis	1	1
Paracoccidioidomycosis	1	1
Ranula	1	1
Bone spicules	1	1
Acute focal lymphocytic sialadenitis	1	1
Pyogenic granuloma	1	1
Liquenoide lesion	1	1
No injury	25	17

Regarding the location of the lesions, 28 distinct regions were found, with the lower lip being the most frequent, with 43 (27%) lesions (table IV) (figure 1).

Table IV - Description of the location of lesions

Injury site	N	%
Lower lip	43	29
Mouth floor	25	17
Hard palate	23	15
Dorsum of tongue	14	9
Border of tongue	12	8
Alveolar ridge	9	6
Buccal mucosa	8	5
Oral commissure	7	5
Vestibule	5	3
Soft palate	4	3
Others	25	17
Not present	17	11

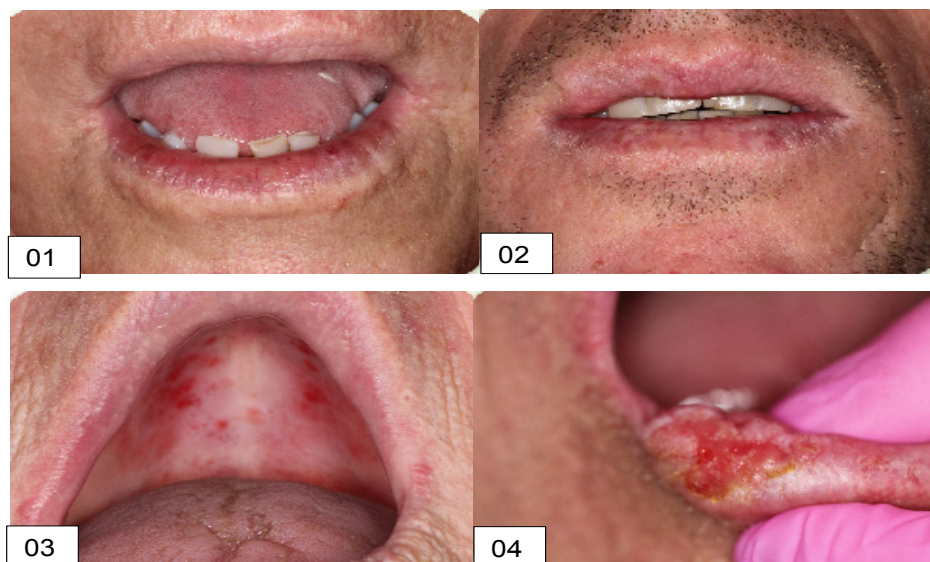


Figure 1 - Clinical aspects of the most prevalent oral lesions: 1) actinic cheilitis with mild epithelial dysplasia; 2) actinic cheilitis with severe epithelial dysplasia; 3) prosthetic stomatitis in palate; 4) oral cancer in lower lip

Regarding clinical management, we observed a high prevalence of guidance associated with follow-up and prescription, seen in 98 (65%) of the medical records, followed by incisional biopsies in 33 (22%) of the cases (table V).

Table V – Clinical management after definitive diagnosis

Clinical management	N	%
Guidelines + follow-up + prescription	98	65
Incisional biopsy	33	22
Excisional biopsy	28	19
Sialometry	22	15
Guidelines + discharge	20	13
Photobiomodulation	18	12
Cytopathology	15	10
Laboratory tests	12	8
Photodynamic Therapy	6	4
Tooth extraction	6	4
Referred to Raul Sertã Municipal Hospital	5	3
Others	15	10
Incomplete Medical Records	4	3

Discussion

The research covered 150 patient records, of which 93 (62%) were female. Such finding agrees with the average of results found in similar studies, where there is a prevalence of women. This result suggests that women seek more dental care, however, the possibility of oral lesions predominantly affecting women should not be discarded [17, 24].

According to the analysis on the age of the patients, we observed that it varies from 2 to 97 years with an average of 53 years old and the most affected decades were the fifth and sixth. The result obtained resembles that of Prado *et al.* [19] in which the fifth decade was the most affected and the mean age was 51 years but does not correspond to the finding in Neto *et al.* [17] who reported having a prevalence of patients between 21 and 30 years, despite having ages ranging from 3 to 97 years.

The prevalence of white skin color 79 (53%) was justified by the reality of the municipality of Nova Friburgo, where there is this significant racial difference in the population, since it is a city of European colonization [9, 21, 25].

The degree of education of patients is low, where 42 (28%) had incomplete middle school, associated with a low income, where 31 (21%) survive with up to one minimum wage [25]. Poverty is evidenced by the lack of search for information about the self-care necessary for the promotion and maintenance of oral health, and it also hinders the access to dental treatment. Knowing the socioeconomic pattern of

users of public services is extremely important in the planning process of activities to be performed in the clinics of higher education institutions [2, 12].

Regarding habits, we emphasize the high number of patients who reported not presenting any habit, such as smoking and alcohol consumption, observed in 90 (60%) of the medical records, since this finding may indicate a change in the population studied or even inadequate completion of the medical records [2, 21]. Individually, the prevalent complaint is the one of “treating the teeth”, with 23 patients (35%), which indicates that the largest proportion of patients do not seek stomatological care, so they do not know or neglect the presence of the lesion, which may justify the late diagnoses that are usually made. Of the 23 (35%) patients who reported treating the teeth as the main complaint, only 6 (17%) did not present any oral lesion. This number coincides with the results found in the study by Andriola *et al.* [2] in which patients define aesthetic issues as the main complaint. This data is concerning and alerts for the fact that this population needs further clarification regarding oral diseases. However, when analyzing the complaints sorted by groups, the patients who have as main complaint some characteristic related to the lesion are more than 50%, and 15 (10%) patients have already referred to the outpatient clinic with diagnostic hypothesis, to perform the definitive diagnosis.

Of the 150 clinical records evaluated, 123 (82%) diagnoses were obtained. Of these diagnoses, 61 (41%) were obtained by biopsies, 22 (15%) by sialometry and 15 (10%) by cytopathological

examination. Thus, histopathological analysis is strengthened as a conclusive instrument of the diagnostic process [3]. An important data revealed in this study is a high number of follow-ups 90 (60%), showing the patient's adherence to the Service and the possibility of performing a more careful treatment, which includes the treatment of the lesion in question and the prevention of other diseases, as seen in the study by Barbosa *et al.* [4] that emphasizes the importance of follow-up.

Unlike other studies on the prevalence of oral [5, 17, 24, 25], the lesion with the highest prevalence was actinic cheilitis 38 (25%). Actinic cheilitis is a potentially malignant lesion that mainly affects the lower lip of light-skinned men over 40 years old, especially those with a history of excessive sun exposure and without adequate protection [16]. Clinically, it exhibits a variable presentation pattern that includes lower lip atrophy associated with loss of elasticity, dryness, fissures, white, red, and ulcerated areas [16]. The high prevalence of actinic cheilitis found in this study can be explained by the predominance of whites and farmers in Nova Friburgo, which is the main local activity that exposes individuals to radiation, remaining under excessive sun exposure without adequate protection. This high prevalence is in accordance with the study by Moreira *et al.* [16] which evaluated 240 predominantly white rural workers, observed 83 cases with clinical diagnosis of actinic cheilitis, reinforcing the correlation between these extrinsic factors and the development of the lesion [6, 13, 16].

Oral cancer is a common neoplasm worldwide, of which almost 90% are diagnosed as oral squamous cell carcinoma [27]. Smoking and alcohol consumption are important risk factors for the development of this cancer [27]. In agreement with other studies, squamous cell carcinoma was the most prevalent malignancy found in 6 (4%) patients [8, 10, 17, 19, 21, 24, 25]. All patients diagnosed with squamous cell carcinoma presented the main complaint related to injury, among them, wound and volume increase, representing an advanced stage of the disease. This data corroborates Freitas *et al.* [7], which warns about the difficulty of treatment and cure due to the advanced state of the disease at the time of diagnosis. Regarding vicious habits, Andrade *et al.* [1] reported that smokers have a 4-fold higher risk of developing squamous cell carcinoma when compared to non-smokers and that the risk increases to six times in individuals

who smoke 20 cigarettes. Synergistic consumption of alcohol and tobacco increases the risk for oral cancer due to increased cellular permeability caused by alcohol, which can lead to an increase in the penetration of carcinogens present in tobacco [7, 20]. In this study, of the six patients who presented squamous cell carcinoma as a diagnosis, four (67%) were smokers and one (17%) was a smoker and an etilist; showing the strong correlation of the disease with smoking.

The limiting factor of this study is the significant number of data not reported in the medical records, impairing the results obtained in this survey. The need for greater awareness of the proper completion of the medical records is evident, as well as the careful and clear anamnesis, so that future studies can obtain more reliable results, without some data being hidden.

Conclusion

The epidemiological profile of patients treated in the outpatient clinic is composed mainly of women, with a mean age of 53 years, mostly white, with only two minimum income wages, retired, unfinished middle school and without vicious habits. The most frequent oral lesion is actinic cheilitis, calling attention to its high prevalence in this public, showing the importance of early diagnosis. Therefore, a specific strategy should be planned for this population, since it presents a distinct diagnostic prevalence from other regions of Brazil, with proper guidance and awareness, emphasizing the importance of early diagnosis of actinic cheilitis for the non-malignant progression of the lesion.

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