

Epidemiological profile of elderly patients with non-melanoma skin cancer seen at the dermatology outpatient clinic of a public hospital*

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Abstract: Basal cell carcinoma and Squamous cell carcinoma, referred to as non-melanoma skin cancer, are the most common malignancies in humans. Their incidence is increasing worldwide every year. In Brazil, even with the advent of educational campaigns on photoprotection and laws that banned tanning beds, they are the most frequent neoplasias, representing a public health problem recognized by the Ministry of health.

Keywords: Aged care; Carcinoma, basal cell; Carcinoma, squamous cell; Social conditions; Elderly; Neoplasms, basal cell; Neoplasms, squamous cell; Skin neoplasms; Health of the elderly

Basal cell carcinoma (BCC) and squamous cell carcinoma (SCC), commonly referred to as non-melanoma skin cancers (NMSC), are the most common neoplasias in humans. Their incidence has been increasing every year throughout the world.¹ In Brazil, even with educational campaigns about photoprotection and laws that prohibited artificial tanning beds, they are the neoplasias with higher incidence, representing a public health concern recognized by the Ministry of Health. For the year of 2016, 175,760 new cases of NMSC are estimated in the population, approximately a third of all the neoplasias recorded in the country.² NMSC have a good prognosis, with high cure rates if treated early and adequately. Despite low mortality, situations in which there is a delay in the diagnosis can lead to skin ulcerations and severe physical deformities, with high morbidity, becoming a burden for health institutions.^{2,3}

NMSC incidence is increasing all over the world every year and can be increased even further by the population aging process. Eighty percent of NMSC diagnoses are made in people older than 55 years of age. Even if it affects young adults and kids, it is a condition essentially of the elderly.⁴

Brazilian population has been going through a significant aging process, leading to a transformation in the epidemiologic profile towards the predominance of chronic, non-transmissible diseases, with cancer being one of them. Therefore, it is crucial that

the health services adapt to the needs of this part of the population, providing it good quality medical care.

For this reason, studies aiming at better understanding the health issues of the elderly with NMSC and the histological types of tumors that most often affect them will be able to offer us scientific data in order to guide the development of guidelines of care to the elderly individuals affected by this condition and help allocate resources in strategies of prevention and early diagnosis.

So, as to become more familiar with the epidemiological profile of the elderly with NMSC seen at a dermatology outpatient clinic at a tertiary public hospital in Brasília, we conducted an observational and analytic study. One hundred and one individuals of both sexes, aged 60 years or older were eligible for the study, selected among the elderly diagnosed with NMSC previously confirmed by histopathology, seen at the Advanced Surgery outpatient clinic at Hospital Regional da Asa Norte, Secretaria de Estado de Saúde do Distrito Federal, between 13/02/2015 and 31/10/2015. It is a referral and counter-referral clinic, with availability to receive skin cancer patients referred from other dermatology services of the hospital system in Distrito Federal. A protocol for data collection was created and approved by the Ethics in Research Committee (108272/2015). For the statistical analysis, we used software R, version 3.2.1, and Excel (part of Microsoft Office Professional Plus 2010), version 14.0.6023.1000. Results are shown in Table 1.

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TABLE 1: Epidemiologic profile of elderly with non-melanoma skin cancer at the public hospital tertiary center in Distrito Federal (absolute numbers and percentages)

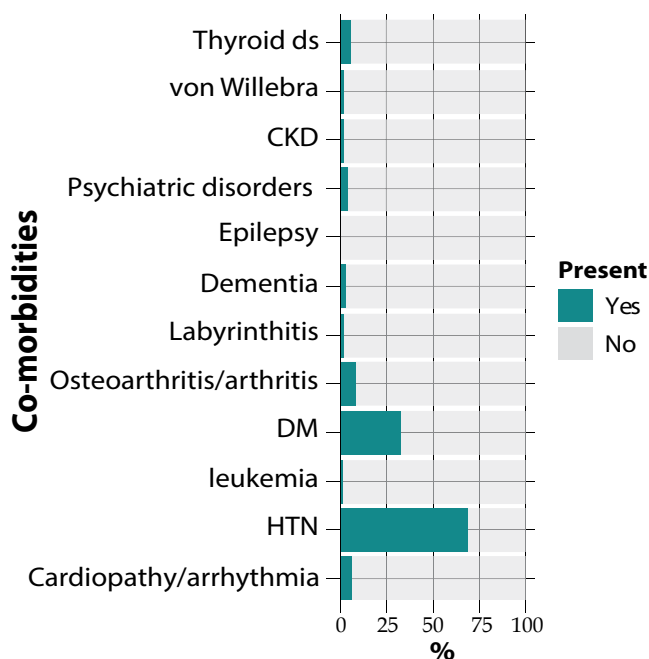
Variables	n	%
sex		
male	42	42
female	59	58
age		
60-69	27	27
70-79	47	47
80-89	19	19
over 90	8	8
race/skin color		
white	80	79
black	4	4
yellow	0	0
brown	17	17
indígena	0	0
years of education		
0-5 years	84	83
more than 5 years	17	17
income		
up to 1 minimum wage	52	51
2 - 5 minimum wages	43	43
5 or more minimum wages	6	6
daily use of sunscreen		
yes	22	22
no	79	78
rural activity at any given time in life		
yes	53	52
no	48	48
basal cell carcinoma (BCC)	80	79
squamous cell carcinoma (SCC)	21	21
high risk BCC on histology (sclerodermiform, basosquamous, micronodular, infiltrative)	8	10
low risk BCC on histology (nodular and superficial)	72	90
<i>in situ</i> SCC	17	81
well differentiated SCC	2	9
moderately differentiated SCC	1	5
poorly differentiated SCC	1	5

The elderly NMSC population seen at the dermatology tertiary center has the following features regarding sociodemographic and clinical factors: majority female, low income and low schooling, predominance of occupations with ultraviolet radiation exposure without daily sunscreen use. The highlighted comorbidities are hypertension and diabetes mellitus, that are also the chronic, non-transmissible diseases more prevalent in the country's elderly population (Figure 1).

In face of the facts observed, it is vital to propose photoprotection measures, with simple information that can be easily understood, so that the health care professionals tailor their instructions, being closer to the elderly's life.

Photoprotection as skin cancer prevention does not include only sunscreen use, which would be difficult for these people to acquire, but also behavioral measures during daytime such as using long sleeved clothes, long pants and wide brimmed hats, and seeking shaded areas. It is important to note that these measures must be incorporated into these individuals' daily lives, so that they can pass them on to their families. This way, children and young people will benefit as well, avoiding the cumulative effects of sun exposure.

Since these individuals have the same comorbidity profile of the Brazilian population studied in the national health research of 2013 and by Vigitel 2014, whenever these patients attend health



Subtitles: **Thyroid ds:** thyroid diseases; **Von Willebra:** von Willebrand disease; **CKD:** chronic kidney disease; **Psychiatric disorders:** psychiatric disorders; **Epilepsy:** epilepsy; **Dementia:** dementia ; **Labyrinthitis:** labyrinthitis; **Osteoarthritis/arthritis:** osteoarthritis/ arthritis; **DM:** diabetes *mellitus* ; **Leukemia:** leukemia ; **HTN:** hypertension; **Cardiopathy/arrhythmia:** cardiopathy/arrhythmia

FIGURE 1: Most common chronic conditions in the elderly with non-melanoma skin cancer

services they should be educated to maintain healthy life styles, potentially avoiding the terrible complications of chronic diseases such as diabetes and hypertension.^{5,6}

Among the elderly people in this study, there was a predominance of BCCs and low risk SCCs with regards to local recurrence or metastasis. This is an important finding, for it reinforces the perception that health education measures that encourage self-skin checks and seeking medical assistance as early as possible are effective in increasing the cure rates for this condition and dramatically decreasing morbidity caused by mutilating surgeries that can happen with advanced stage disease. □

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