ANÁLISE EPIDEMIOLÓGICA DO CÂNCER DE PELE EM MONTES CLAROS-MG SEGUNDO SEXO E SITUAÇÃO OCUPACIONAL

Epidemiological analysis of skin cancer in Montes Claros-MG according to sex and occupational situation

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Resumo: O câncer de pele é o tipo de câncer mais comum na humanidade. Em um país tropical como o Brasil, com alta incidência solar durante todo o ano, ele se torna ainda mais frequente. O câncer de pele não melanoma é o de maior incidência no Brasil, correspondendo a 25% de todos os tumores malignos registrados no país. Alguns dos fatores de risco para o desenvolvimento do câncer cutâneo são: exposição solar, exposição à radiação, idade, gênero (sexo masculino), pele clara etc. **Objetivo**: Dada a importância e incidência elevada desta patologia na população, busca-se com este estudo, uma análise epidemiológica do câncer de pele em Montes Claros-MG segundo variantes de sexo e situação ocupacional. **Metodologia:** Foi realizada análise descritiva, com delineamento retrospectivo e transversal na coleta dos dados, bem como abordagem quantitativa destes. A fonte de dados foi o Integrador Registro Hospitalar de Câncer (RHC) disponível no sítio eletrônico do Instituto Nacional do Câncer (INCA). **Resultados:** Foram notificados 1306 indivíduos com diagnóstico de câncer de pele, sendo 53,3% (n= 696) do sexo feminino e 46,7% (n= 610) do sexo masculino. A maior parte (n=114) das notificações por neoplasias cutâneas ocorreu no ano de 2010, o acometimento entre os sexos não apresentou diferença durante os anos contemplados pelo estudo. Dentre as profissões observou-se maior percentual de câncer de pele em trabalhadores agropecuários (34,68%). **Conclusão:** Os dados apresentados alertam para a necessidade de intensificação das políticas públicas voltadas para a informação destes trabalhadores mais acometidos.

Palavras-chave: Neoplasias cutâneas; Melanoma; Raios ultravioletas.

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Abstract: Skin cancer is the most common type of cancer. In a tropical country like Brazil, with high solar incidence all year round, it becomes even more frequent. Non-melanoma skin cancer is the one with the highest incidence in Brazil, accounting for 25% of all malignancies registered in the country. Some of the risk factors for the development of cutaneous cancer are: sun exposure, radiation exposure, age, gender (male gender), fair skin etc. **Objective**: Given the importance and high incidence of this pathology in the population, this study seeks an epidemiological analysis of skin cancer in Montes Claros-MG according to gender and occupational situation variants. **Methodology:** Descriptive analysis, retrospective and cross-sectional design in the data collection, as well as this quantitative approach was undertaken. The data source was the Cancer Hospital Registry Integrator (RHC) present on the electronic website of the National Cancer Institute (INCA). **Results**: A total of 1306 individuals with a diagnosis of skin cancer were analyzed, being 696 females (53.3%) and 610 males (46.6%). The majority of reports of cutaneous neoplasms occurred in the year 2010 (n=114), the involvement between the sexes did not present difference during the years contemplated by the study. Among the professions present in the database, it was possible to observe a higher percentage of skin cancer in agricultural workers (34,68%). **Conclusion**: The data presented highlight the need to intensify the public policies aimed at informing these workers who are more affected.

Key words: Skin Neoplasms; Melanoma; Ultraviolet rays.

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INTRODUCTION

Cancer is the name given to a group of malignant diseases characterized by abnormal and uncontrolled growth of cells that suffered alteration in their genetic material, at some moment of their cell cycle. These genetically modified cells can invade the tissues and organs, spreading to other areas of the body, generating several types of cancer[1]. The different types of cancer are classified into broad categories: the carcinomas, leukemias, lymphomas and myelomas, and tumors of the central nervous system[2].

Skin cancer is the most common type of cancer. In a tropical country like Brazil, with high solar incidence all year round, it becomes even more frequent. There are two main types of disease: melanoma, which originates in the cells that produce the pigment that gives color to skin, melanin, a more aggressive tumor that can cause metastasis to other organs. And the non-melanoma, which originates in the basal cells and has high percentage of cure, if detected early[3].

Non-melanoma skin cancer is the highest incidence in Brazil, corresponding to 25% of all malignant tumors registered in the country[3] and is the most common type of cancer in people with more than 40 years, being relatively rare in children and black people. People with light skin, sensitive to the action of solar rays or with previous cutaneous diseases are the main victims [4.5].

The general risk factors for the development of cutaneous cancer are: solar exposure, exposure to radiation, age, gender (male), skin exposure to chemicals (arsenic, tar, coal, paraffin), inflammation or lesion of the skin, dry skin, psoriasis treatment, smoking, compromised immunity, Human Papilloma Virus (HPV) and Gorlin syndrome[6]. According to the National Institute of Cancer (INCA), the professions that are more associated with the non-melanoma skin cancer are agents of health, postman, bricklayer, fisherman, lifeguards, traffic warden, rural worker and sales people. Whereas the occupations that have a higher prevalence in the case of melanoma skin cancer are postman, pharmacist, phone

installer, mining worker, chemist, telephone operator, airline pilot and electrical fitter[7].

Regarding the diagnosis, the ability of suspicion on the part of the health care professional in relation to this cancer allows, many times, that the patient with multiple risk factors receives educational measures concerning early solar exposure. The diagnosis of skin cancer involves mainly the clinical examination, performed by means of visual inspection of the patient's skin, and the histopathological analysis through the lesion biopsy. Dermatoscopy and confocal microscopy are techniques that can currently be used as tools to aid in the diagnosis of skin cancers[8].

There are several therapeutic options for the treatment of non-melanoma skin cancer. The modality chosen varies according to the type and extent of the disease but, normally, the greater part of basal cell carcinomas or squamous cell can be treated with simple procedures (excisional surgery, curettage and electro dissection, cryosurgery, laser surgery, Micrographic Surgery of Mohs, photodynamic therapy). In relation to skin cancer melanoma, its treatment varies depending on the extension, aggressiveness and location of the tumor, as well as the age and general health status of the patient. The most frequently used modalities are the excisional surgery and Mohs Micrographic Surgery. In most cases, the metastatic melanoma has no cure, so it is important to detect and treat the disease as soon as possible. Specific treatments may be recommended, either alone or in combination, for the treatment of advanced melanomas, including chemotherapy, radiotherapy and immunotherapy[9].

Given the importance and high incidence of this pathology in the population, this study seeks an epidemiological analysis of skin cancer in Montes Claros-MG according to gender and occupational situation variants.

METHODOLOGY

The present study had as territorial and temporal delimitation the city of Montes Claros, located in Minas Gerais, in the period from January 1996 to December 2016. Descriptive analysis, retrospective and cross-sectional design in the data collection, as well as this quantitative approach was undertaken. The data source was the Cancer Hospital Registry Integrator (RHC) present on the

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electronic website of the National Cancer Institute (INCA). The search took the variables of the type of cancer (skin), as well as gender and occupation of the affected patients.

For the data description, distribution of frequency and graphs were used, in which the frequency of involvement by cutaneous neoplasias was analyzed, taking into consideration the variables: gender and temporal sequence (1996 to 2016), in addition to the percentage of involvement by skin cancer according to the profession. For tabulation of results the program Microsoft Excel version 2016 was used.

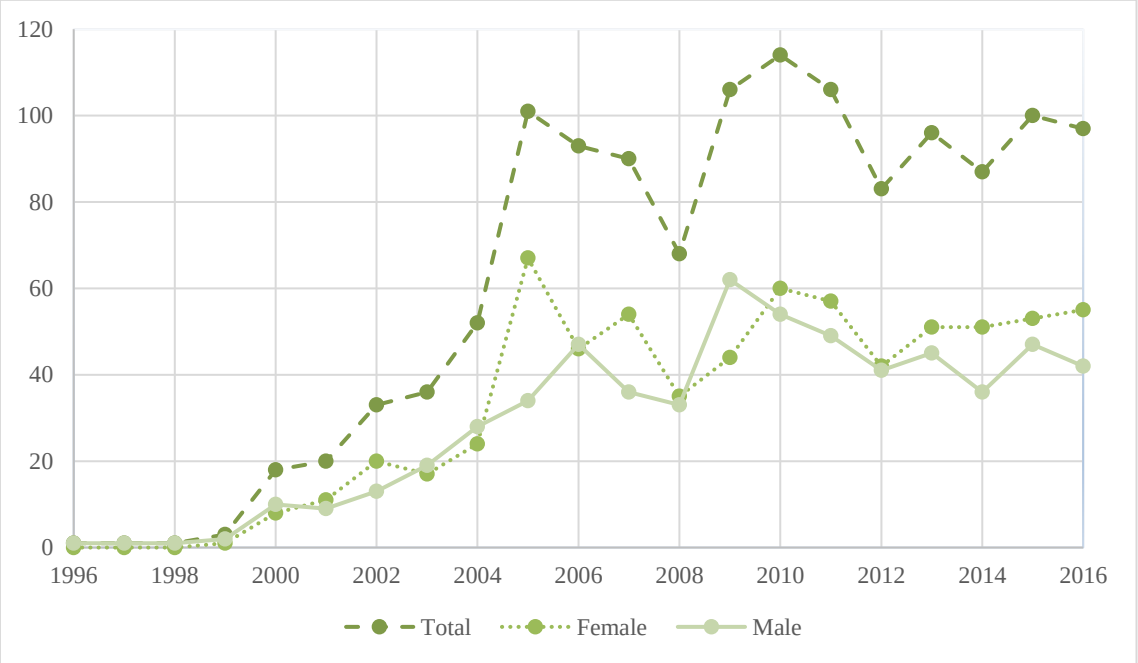
The present study did not require the involvement of the Committee on Ethics in Research in reason of the characteristic open data, preventing any form of identification of the individuals involved, in addition to not using biological material originated from the same, as advocated by Resolution 466/12 of the National Health Council.

There are no conflicts of interest between the authors, nor funding for the study, being this nonprofitable.

RESULTS

A total of 1306 individuals with diagnosis of skin cancer were analyzed, being 696 females (53.3%) and 610 males (46.7%). Most of the notifications by skin neoplasms occurred in the year of 2010, being that there was a greater number of skin neoplasms in female individuals in the year of 2004 (n = 67) and among those of males in the year of 2009 (n = 62). It was also observed that there was an increase in notifications in the total number of cases until the year 2005, occurring later fall in subsequent years until 2008. In 2009, the number of cases returned to increase, reaching a peak in 2010 (n=114). The subsequent years occurred by decreasing and increasing consecutive variations in reported cases of skin cancer (Graph 1).

Number of notified cases of skin cancer according to variables of sex. Montes Claros, MG, 1996-2016.



In Graph 2 the percentage of involvement by skin cancer is presented according to occupational situation. Among the professions a higher percentage of skin cancer was verified in agricultural workers (34.68%), domestic/servant (14.11%), bricklayers (1.35%), driver of vehicles (1.13%) and other laborers (0.83%). Among the years studied, there was a notification of two cases in medical professionals, corresponding to 0.15% of the sample.

Graph 2

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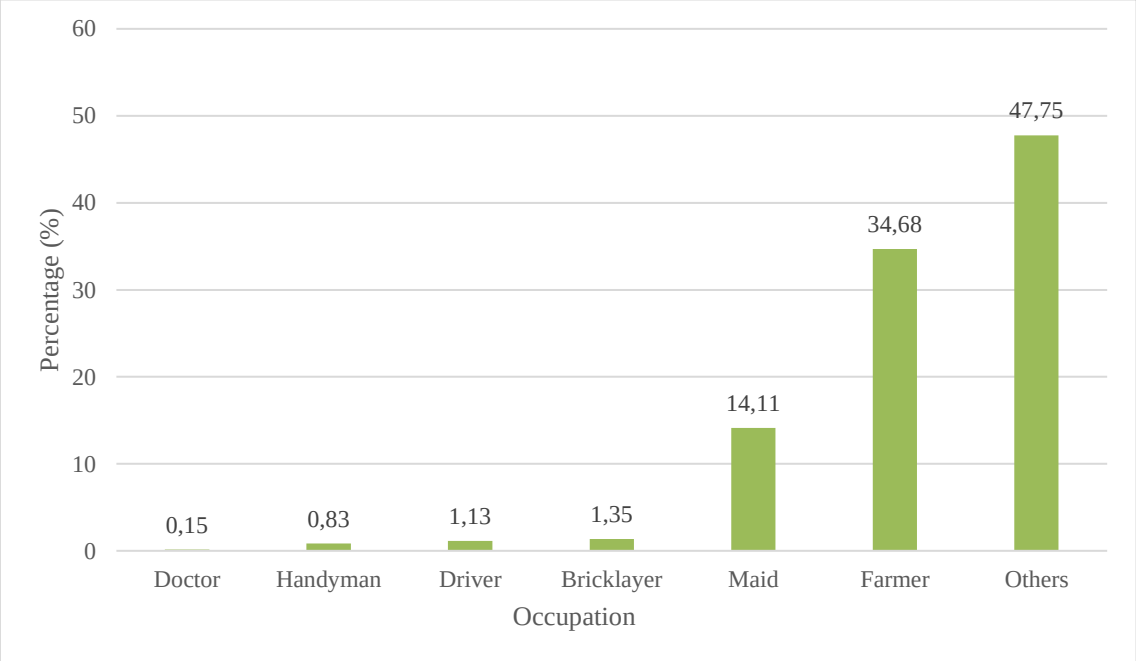
Graph 2- Percentage of impairment due to skin neoplasms according to the profession. Montes Claros, MG, 1996-2016.



DISCUSSION

Exposure to ultraviolet (UV) radiation has a cumulative effect[9], therefore, in the context of the employment situation in which the worker is exposed to UV rays in a chronic form, the risk of even develop a cutaneous malignancy is very high. The literature confirms this, upon stating the direct relationship that has the appearance of skin cancers with the incidence of UV rays on the skin.[10] Thus, higher occurrence of neoplasia is explained in agricultural and domestic workers, by reason of the greatest solar exposure. Both professions are intimately associated with occupational exposure to sunlight. In a study performed by Pires et al. (2018)[11], that

from the analysis of the sociodemographic profile of patients diagnosed with skin cancer, from January 2013 to January 2016, concluded that among women, the most common profession was maid.

It is understandable that the doctors present less skin cancer than the brick layers, maids, drivers of vehicles and other laborers. This observation is aligned to what is shown in the work of Moan et al. (2015)[12] on activities that involve greater solar exposure being directly related to higher incidence of skin cancer among the professionals. In addition, the difference in incidence is enhanced by the fact that the studied region was Equatorial, with high intensity of sunlight.

In relation to sex, the results showed that the predominance over the years was balanced, with close percentages, whose explanation may be due to the fact that the occurrence of non-melanoma skin cancer is greater in men and the type of melanoma is higher in women. [13,14] Castilho et al. (2015)[15] and Pires et al. (2018)[11] in their respective studies showed little difference in the occurrence of skin cancer as to sex. 51.2% were women in the first study and 50% in the second. The discrepancy of percentage is cited in works such as INCA (2014)[16] and Souza et al. (2011)[17] in that discussion about the higher incidence of the diagnosis of cancer in women, justified according to them by the culture of tanned skin in Brazil.

Point of interest is the progressive increase in the number of cases reported in the city studied from the year 2000, reaching a plateau in 2010, demonstrating greater access of the population to the health system and implementation of campaigns to disseminate information. However, it is believed that these figures are in fact greater, since the skin cancer is the most common malignant neoplasm in Brazil.[14]

CONCLUSION

In the municipality of Montes Claros, the incidence of skin cancer is high, with a greater number of notifications in the year 2010. There was no difference in the number of affections between genders, but there was a discrepancy in relation to the occupation of the affected people, those who are exposed to the sun were the most affected. The data presented highlight the need to intensify the public policies aimed at informing these workers who are more affected.

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