Original Articles

Epidemiological study of basal cell carcinoma between 2010 and 2013, at a dermatology reference hospital in the city of Bauru, São Paulo State, Brazil

Estudo epidemiológico do carcinoma basocelular no período de 2010 a 2013 em um hospital de referência em dermatologia na cidade de Bauru, São Paulo

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ABSTRACT

Introduction: Basal cell carcinoma is the most common skin cancer and corresponds to 70-80% of all malignant neoplasms of the skin. It is emerging as a global public health problem, with incidences of the condition increasing in all countries.

Objective: To evaluate the epidemiological profile and characteristics of patients diagnosed with basal cell carcinoma in the previous four years in a reference hospital.

Methods: A cross-sectional descriptive study was carried out at a dermatology reference center in the city of Bauru, São Paulo State, Brazil. Patients diagnosed with basal cell carcinoma, confirmed by histological examination from January 2010 to December 2013 were included in the study. The variables analyzed descriptively were: age at diagnosis, gender, city of origin, site of lesion, and race.

Results: A higher incidence of basal cell carcinoma was observed in Caucasian women older than 60 years, with the malar and nasal regions arising as the usual locations.

Conclusions: There is an increased incidence of basal cell carcinoma in young people, however the most affected population is still the elderly Caucasian population. The most common area for the cancer is the face, particularly the upper two thirds. The incidence of this cancer in younger populations is worrying, with the dermatologist having an important role in the prevention and early treatment.

Keywords: carcinoma, basal cell; epidemiology; skin neoplasms; pathology; dermatology

RESUMO

Introdução: *O carcinoma basocelular é o câncer da pele mais comum e corresponde a 70-80% das neoplasias malignas da pele. Sua incidência vem aumentando em todos os países, configurando um problema de saúde pública mundial.*

Objetivo: *Avaliar o perfil epidemiológico e as características dos pacientes diagnosticados com CBC nos últimos quatro anos em um hospital de referência.*

Métodos: *Foi realizado estudo transversal e descritivo em um serviço de referência em dermatologia na cidade de Bauru (SP) incluindo pacientes com diagnóstico de carcinoma basocelular confirmado por exame histopatológico, no período de janeiro de 2010 a dezembro de 2013. As variáveis analisadas de forma descritiva foram: idade ao diagnóstico, gênero, cidade de origem, local da lesão e raça.*

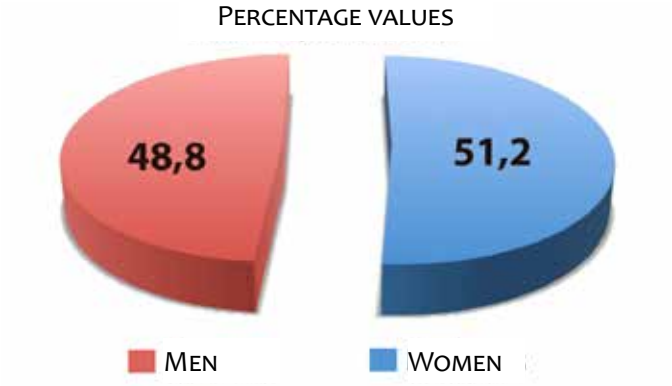
Resultados: *Observou-se maior incidência de casos de CBC em mulheres, da raça branca, com mais de 60 anos, sendo as localizações preferenciais as regiões malares e nasal.*

Conclusões: *Há um aumento da incidência de carcinoma basocelular em jovens, embora o segmento mais afetado continue sendo a população branca e idosa. A área preferencial do câncer é a face, principalmente nos dois terços superiores. É preocupante a incidência dessa neoplasia em populações mais jovens, sendo importante o papel do dermatologista na prevenção e no tratamento precoce.*

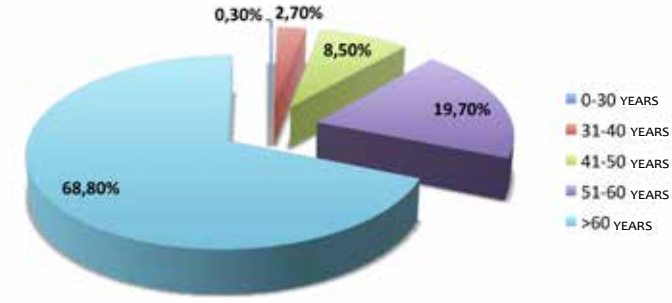
Palavras-chave: *carcinoma basocelular; epidemiologia; neoplasias cutâneas; patologia; dermatologia*

INTRODUCTION

Basal cell carcinoma (BCC) is a cutaneous neoplasm that originates from pluripotent immature basal epithelial cells that lost their normal differentiation and keratinization capacity, as well as of those of the skin adnexa.[1] It is the most common skin cancer in the world, and in Brazil it corresponds to 70-80% of the malignant cutaneous neoplasms.[2; 6-8] It affects mainly white males above 40 years of age with history of chronic exposure to the sun. Its preferred location is the face, especially the two upper thirds. Exposure to ultraviolet radiation is the main environmental risk factor associated with its genesis. More recently, BCC has demonstrated alterations in its presentation, such as involvement of unexposed areas and tendency to higher incidence in females.[3,4,6] The cumulative risk of BCC in the white population is more than 30%, and its incidence has been increasing in all countries, configuring a growing public health problem.[2] The BCC is a slow-growing, locally aggressive neoplasia, however it is rarely able to generate metastases.[3,6] The most frequent clinical subtype is the nodular-ulcerative, which occurs more frequently in areas exposed to the sunlight, followed by the superficial subtype, which is more prevalent in the trunk region. The diagnosis is clinical and confirmed by histology, and surgery remains the therapy of choice.[1,5] The present study was aimed at evaluating the epidemiological profile and characteristics of patients with BCC seen from 2010 to 2013 at the Istituto Lauro de Souza Lima, a tertiary referral hospital in dermatology, located in the city of Bauru (SP), Brazil, correlating the findings with data already published in the literature.



GRAPH 1: Distribution of BCC cases by gender



GRAPH 2: Distribution of BCC cases by age

METHOD

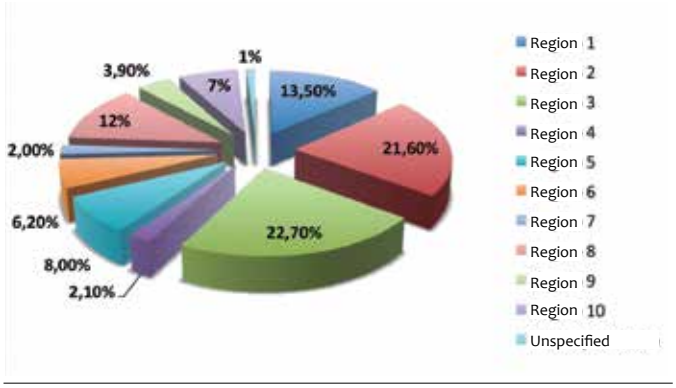
A transversal descriptive study was carried out based on a research performed on the database of a reference service in dermatology, including patients bearers of BCC confirmed by histological examination, between January 2010 and December 2013. The variables analyzed – only descriptively – were: *age at diagnosis*, *gender*, *city of origin*, *location of lesion* and *ethnicity*.

RESULTS

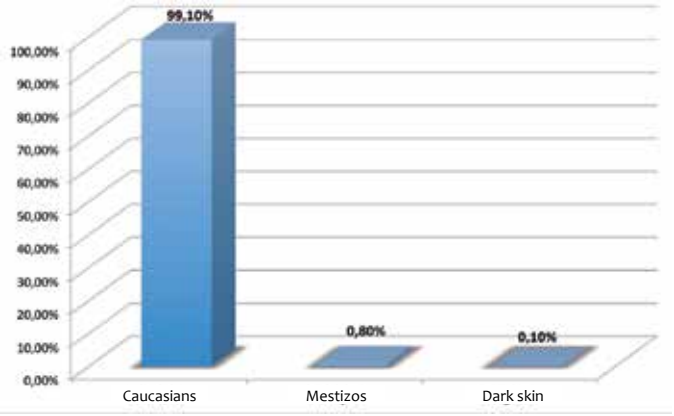
Between 1st January 2010 and 31st December 2013 1,968 reports with BCC diagnosis were identified for a total of 1,150 patients, with an average of 1.7 lesion per patient. The maximum number of lesions with diagnosis of BCC in the same occasion was 7, and the maximum number of BCCs in the same patient during the four years period was 13. Of the patients with BCC, 51.2% were female and 48.8% were male (Graph 1). The age ranged from 21 to 97 years, with patients grouping into five categories: up to 30 years (0.3%), 31-40 years (2.7%), 41-50 years (8.5%), 51-60 years (19.7%) and over 60 years – the latter with an absolute majority of cases (68.8%) (Graph 2). The location of the lesion was marked according with ten anatomical regions: 1) forehead, temporal and scalp (13.5%), 2) nose (21.6%), 3) malar, maxillary, mandibular and periorbital (22.7%), 4) mentum (2.1%), 5) auricular, pre-auricular and retroauricular (8%), 6) cervical region and anterior thorax (6.2%), 7) abdomen (2%), 8) shoulders and upper limbs (12.0%), 9) hip, buttocks and lower limbs (3.9%), 10) dorsum (7.0%), and 11) unidentified location (1.0%) (Graph 3 and Figure 1). Patients were also grouped in Caucasians (99.1%), mestizos, mulattos and yellow (0.8%), and dark skin individuals (0.1%) (Graph 4). It has also been found that 51.6% of the patients analyzed were originary from the city where the study was carried out, and 48.2% from municipalities in the city of Bauru (SP) region, for the hospital functions as a reference center to 67 cities, with only 0.2% of cases being originated outside the region (Graph 5).

DISCUSSION

The high morbidity caused by BCC in advanced stages is a public health problem. Prevention and early diagnosis, in addition to the knowledge about risk factors are crucial for the reduction in the morbidity. The lack in information on the epidemiology of BCC in the Brazilian population justifies this study. The findings linked to gender suggest absence of significant difference between the percentage of affected men and women. In the present study, a higher incidence of BCC in women as compared to men was observed – a finding that differs from much of the published literature – [5] however more recent studies have shown that change in the pattern of occurrence. [3,4,6,8,9] It is possible to notice an increase in the incidence of BCC in younger



Graph 3: Distribution of BCC cases by body site



Graph 4: Distribution of BCC cases by ethnicity

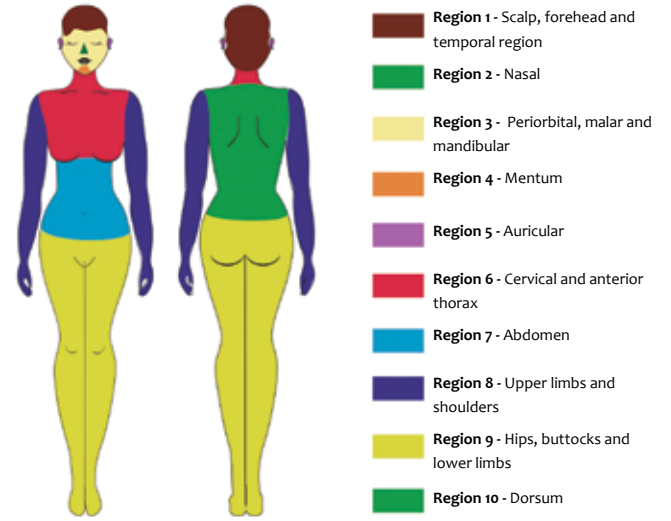
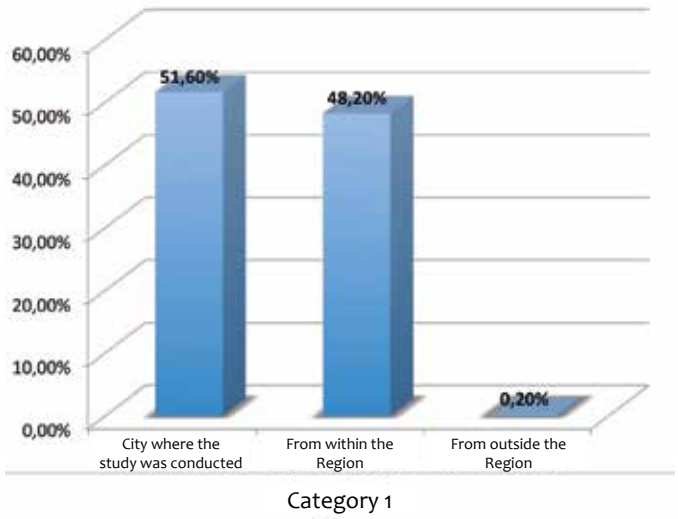


Figure 1: Body regions



Graph 5: Distribution of BCC cases origin by regional geographical location

patients, which can be partly explained by the tanned skin culture and more time available for leisure. Nevertheless, patients with over 60 years of age remain the most affected group by the neoplasm, in line with the remaining of the reviewed literature. There was almost absolute predominance of Caucasians, as described in the literature. [1-9] However, this result can be questioned, since the ethnicity classification is subjective and defined by the patient him or herself when answering the admission questionnaire. Regarding the location of the lesion, it was possible to observe a higher incidence of BCC on areas exposed to the sun, predominantly in the face, with emphasis on the malar region and the nose region. Covered areas, such as legs and trunk, showed very little incidence. It was not possible to group the lesions according to their histological type, since the service's pathology department does not make that differentiation among the neoplasms found.

CONCLUSION

The present study is aligned with most of the current literature, which has been showing a progressive increase in the involvement of women and young patients. [6] It also confirms that the Caucasian population is the most affected group by this cancer type and that exposed areas are at increased risk of developing lesions [1-9]. The increased incidence of this neoplasm in the younger population is alarming. It is therefore important that this population be educated about the fact that the main causal factor of the neoplasm is the frequent and cumulative exposure to the sun, through campaigns focusing on photoprotection and guidance during dermatologic consultations. ●

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