Original Articles

Malignant melanoma: epidemiological study of cases diagnosed at a dermatological reference center in the city of Bauru, in the Brazilian southeast State of São Paulo, between 2007 and 2014

Melanoma maligno: estudo epidemiológico dos casos diagnosticados em unidade de referência em dermatologia em Bauru-sp de 2007 a 2014

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ABSTRACT

Introduction: The trends of malignant melanoma in Brazil are aligned with those worldwide: increasing incidence with reduced degree of severity at diagnosis.

Objective: To use the prognostic criteria of the Grupo Multicêntrico e Multidisciplinar Brasileiro para Estudo do Melanoma (Brazilian Multicenter and Multidisciplinary Group for the Study of Melanoma) combined with clinical characteristics aimed at developing a clinical and histopathological profile of melanoma cases.

Methods: A cross-sectional descriptive study was carried out, with the retrospective analysis of medical records of patients diagnosed with melanoma at a tertiary dermatology reference unit in the city of Bauru, in the Brazilian southeast State of São Paulo, between January 2007 and July 2014.

Results: Female patients accounted for 56.2%, with ages ranging from 27 to 95 years (Mean = 61.4 years), with a lesion having been detected on physical examination in 36% of cases. The highest incidence of the disease was in the lower limbs (23.5%), with the superficial spreading subtype corresponding to 79.6% of biopsies. The average Breslow thickness was 2.9 mm, and in 28.1% of cases, the lesion was in situ.

Conclusions: The following profile emerged: women, 61-years-old, with lesions in the lower limbs, superficial spreading subtype and with evidence of good prognostic. Studies like this are important due to the fact they provide subsidies for the design of strategies to treat the population.

Keywords: epidemiology; melanoma; histology; pathology, surgical; skin neoplasms

RESUMO

Introdução: *No Brasil o melanoma maligno segue tendência mundial de aumento da incidência com redução da gravidade dos casos ao diagnóstico.*

Objetivo: *Utilizar os critérios prognósticos do Grupo Multicêntrico e Multidisciplinar Brasileiro para Estudo do Melanoma aliados a características clínicas para elaborar um perfil clínico e histopatológico dos casos de melanoma.*

Métodos: *Trata-se de estudo transversal e descritivo com análise retrospectiva de prontuários dos pacientes diagnosticados com melanoma em unidade terciária de referência em dermatologia na cidade de Bauru (SP) entre janeiro de 2007 e julho de 2014.*

Resultados*: O sexo feminino correspondeu a 56,2%, a idade variou de 27 a 95 anos com média de 61,4 anos, e em 36% dos casos a lesão foi detectada no exame físico. A maior incidência de acometimento foi nos membros inferiores (23,5%), e o tipo extensivo superficial correspondeu a 79,6% das biópsias. A espessura média do Breslow foi de 2,9mm, e em 28,1% dos casos a lesão era in situ.*

Conclusões*: Delineou-se o seguinte perfil: mulheres, 61 anos, com lesões localizadas em membros inferiores, subtipo extensivo superficial e com indícios de bom prognóstico. Estudos como este adquirem importância por fornecer subsídios para o delineamento de estratégias de abordagens populacionais.*

Palavras-chave: *epidemiologia; histologia; melanoma; neoplasias cutâneas; patologia cirúrgica*

INTRODUCTION

Melanoma is a malignant neoplasm arising from melanocytes that predominantly occurs in the skin (in over 90% of cases). However, it can also be observed in mucous membranes, on the eyeballs, or the leptomeninges. [1] In Brazil, cutaneous malignant melanoma (CMM) is aligned with the worldwide trend of an increasing incidence yet reduced degree of severity in diagnosed cases. [1-4] Despite being the most lethal skin cancer, [2, 5] the population from which epidemiological data from CMM cases can be collected in Brazil is limited, mainly due to the absence of mandatory reporting, the lack of central registration of cases, and little attention from public health managers. [6] In the present study, the authors used the prognostic criteria of the Brazilian Multicenter and Multidisciplinary Melanoma Study Group (*Grupo Multicêntrico e Multidisciplinar Brasileiro para Estudo do Melanoma – GBM*), [7, 8] for the preparation of clinical and histological profiles of CMM cases seen in the last seven years in dermatologic referral centers in the Southeast city of Bauru (SP). Thus, the objective of the study is to develop a profile corresponding to a risk group, encourage early diagnosis, and contribute to the targeting of prevention campaigns.

METHODS

A cross-sectional descriptive study with retrospective analysis carried out using the medical records of all patients who had a histological diagnosis of primary CMM by excisional biopsy in a tertiary unit of the dermatology referral in the city of Bauru (SP), between January 2007 and July 2014.

The sampling was non-probabilistic for convenience, including all patients with histological diagnosis of primary cutaneous melanoma by excisional biopsy during the study period. Melanomas of mucous membranes and eyes, metastatic melanomas, residual melanomas, recurrent melanomas, melanomas observed in slides review or in incisional biopsies were excluded. In all, 64 cases of primary cutaneous melanoma were assessed.

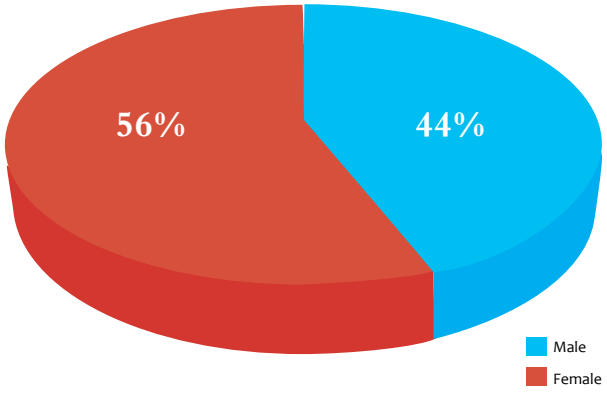
For each case, the epidemiological and clinical characteristics were identified: age, gender, time elapsed between the lesion onset and diagnosis, and tumor location. The histological characteristics, such as melanoma subtype classification and GMB's prognostic criteria [7, 8] were also identified: Clark index, Breslow thickness, mitotic index, presence of lymphocytic infiltrate, presence of angiolymphatic and perineural invasion, presence of ulceration and regression, microscopic satellitosis and compromise of surgical margins.

Because the study was based on data collection from medical records and histological examinations, possible measurement and information bias should be considered.

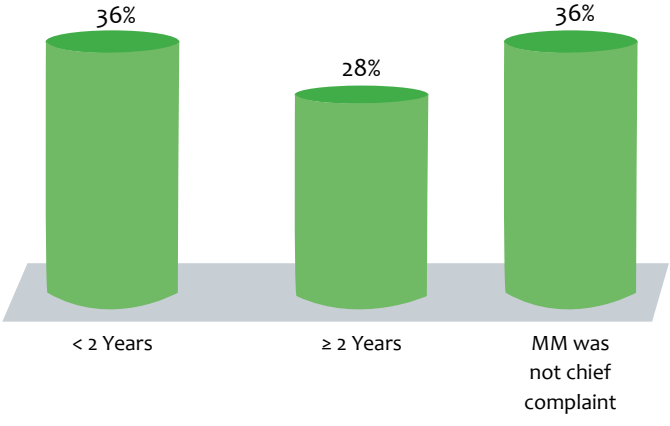
The data were processed using Microsoft® Excel with frequency and percentage analysis, and preparation of graphs. The principles of the Declaration of Helsinki were observed during the study.

RESULTS

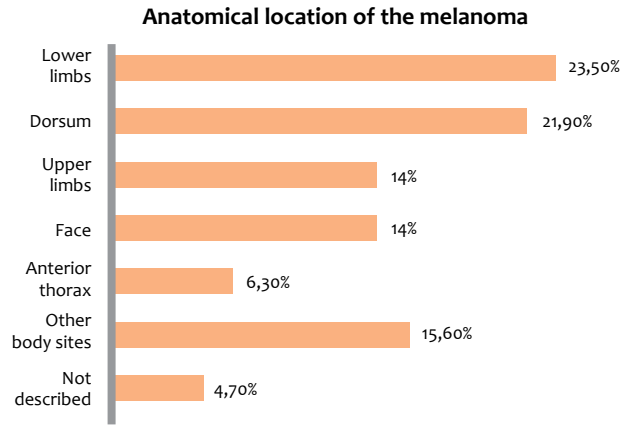
In the present study, 43.8% of patients were male, and 56.2% were female (Graph 1). The age of the sample ranged from 27 to 95 years (mean age = 61.4 years). The time elapsed between the lesion onset and diagnosis was fewer than 2 years in 36% of patients, longer than 2 years in 28% of patients, and for 36% of the patients the lesion was not the main complaint and was detected on physical examination (Graph 2). Regarding the lesions' topography, the most affected body sites were the lower limbs (23.5%), followed by the dorsum (21.9%), upper limbs and face (each with 14%), anterior chest (6.3%) and other sites (15.6%). In 4.7% of cases this datum was not included in the record (Graph 3). The superficial spreading type corresponded to 79.6%, the nodular type to 12.6%, the lentigo maligna melanoma and the acral lentiginous melanoma each corresponded to 3.1%, and the desmoplastic melanoma to 6.1% (Graph 4). Regarding the GMB's severity criteria, the Breslow thickness ranged from 0.12 mm to 37.0 mm (mean = 2.9 mm). In 28.1% of cases the



Graph 1: Distribution of melanoma cases according to gender



Graph 2: Time elapsed between the first symptom and the diagnosis of CMM



Graph 3: Distribution of CMM cases according to body topography

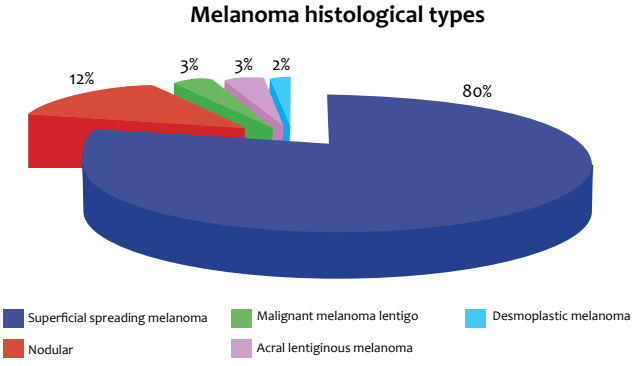
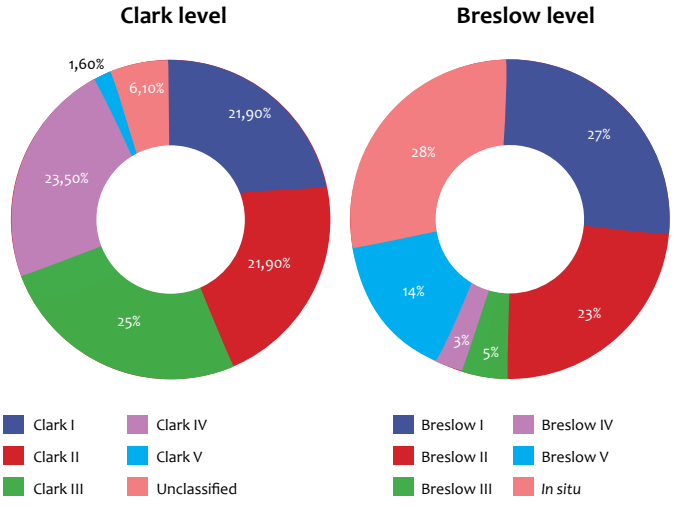


Gráfico 4: Distribution of CMM cases according to histological type



Graph 5: Distribution of CMM cases according to histological type

lesion was *in situ*. The percentages of each thickness, Breslow (I to V) and Clark levels (I to V) are highlighted in Graph 5. The ulceration was present in 14.2%, regression areas in 26.6%, and mitotic index higher than zero in 34.4%. Only one case (1.6%) had angiolymphatic invasion, and 42.2% of biopsies showed lymphocytic infiltrate. Satellitosis and neural invasion were not detected. Regarding the compromise of surgical margins, the biopsies were free of neoplastic involvement in 81.3% of cases, while there was a presence of compromise in 15.6% of cases. This datum was not recorded in 3.1% of cases. Research in search of other skin cancers was positive in 43.8% of patients.

DISCUSSION

CMMs were more common in women (56.2%), consistent with studies conducted in the Brazilian states of São Paulo (Southeast Region) and Santa Catarina (South Region).[2, 3, 9–11] This association relates to women's greater adherence to prevention campaigns and more frequent use of healthcare services. The average age at diagnosis of 61.4 years is similar to that observed in a Portuguese study (61 years)[1] and other Brazilian studies, such as those conducted in the city of Curitiba (South Region), with an average age of 58 years[12] and in the city of Brasilia (Mid-West Region), with more cases affecting the age group of 61-80-year-olds.[13] Prevalence in the elderly is a result of increased life expectancy coupled with a greater difficulty in this age group for early detection of neoplastic lesions. In line with other studies,[6,14] the association of CMM with other skin cancers was verified at 43.2%, pointing towards a subgroup of individuals with intense exposure to the sun. In 36% of patients, although CMM was not the complaint leading to the consultation, this condition was detected during an examination. In this context, it is important to recognize the importance of a complete dermatological examination, which includes performing a dermoscopy. This is a non-invasive, ancillary diagnostic tool of high sensitivity (98.8%) and specificity (91.2%) for CMM detection, making it very important in the differentiation of melanocytic and non-melanocytic lesions.[14–16] The most affected topographies were the lower limbs (23.5%) and the dorsum (21.9%), consistent with the literature data.[1, 3, 4, 17, 18] Hospital-based publications of the 1990s and first decade of the century XXI[13, 19, 20] show a higher incidence of the nodular subtype with a lower proportion of non-invasive diagnosis of CMM. The present study confirms the emergence of a new profile for CMM in Brazilian tertiary units, with the superficial spreading type as the most frequent (79.6%) and 28.1% of lesions diagnosed *in situ*. Regarding GBM's severity criteria, most patients in the present study offered evidence of a good prognosis, with Breslow levels I and II in half of the cases, Clark levels I, II, and III in 68.8%, and a mitotic index greater than zero in only 34.4%. Moreover, other severity criteria such as regression, ulceration, and angiolymphatic invasion showed low positivity. Still, regarding the degree of severity there was no satellitosis and neural invasion. Most reports (81.3%) described free surgical margins, revealing technical diligence in excisional

biopsies. Historically, severe cases of CMM prevailed in tertiary hospitals. [13], [19], [21] The present study shows that this scenario is changing, with a greater tendency toward early diagnosis. This early diagnosis profile combined with better prognosis was observed in other Brazilian studies conducted in the South and Southeast regions, [2], [3], [8], [22] However, this profile was not found in similar studies conducted in the North and Northeast regions, [6], [17] a fact that reveals important regional differences that must be considered when planning prevention campaigns for the population.

CONCLUSION

In this study, the following CMM profile was observed: female, average age = 61 years, with lesions not always observed before the consultation, located in lower limbs or trunk, with superficial spreading subtype and with good prognostic signs according to the GBM's criteria. Studies such as the present paper, which strives for the identification of risk groups, prognostic factors, and the understanding of CMM histological behavior, are important for providing subsidies for the design of strategies for approaching populations. ●

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