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INTRODUCTION

Cutaneous melanoma is an aggressive and potentially fatal skin cancer and its early diagnosis is fundamental for the survival of affected patients. Its classic clinical diagnosis is based on asymmetry (A), irregular borders (B), distinct colors (C) and diameter above 6mm (D). Dermatoscopy is a semiotic technique that increases the accuracy of its diagnosis. However, there are no studies defining the criteria for suspicion in lesions ≤ 6 mm in diameter.

OBJECTIVES

The main objective of this study is to describe the clinical and dermatoscopic parameters of suspected melanocytic proliferations in lesions ≤ 6 mm on the largest axis. Secondary objectives include the description of clinical and dermatoscopic findings of lesions ≤ 6 mm, the validity of clinical and dermoscopic suspicion (determination of sensitivity, specificity, positive predictive value, negative predictive value and accuracy of each criterion) and identification of associated independent factors to the histopathological diagnosis of melanoma in small lesions (≤ 6 mm).

METHODOLOGY

This is a cross-sectional study of dermatoscopic analysis (diagnostic test) with the gold standard being the anatomopathological examination obtained from the excisional biopsy of melanocytic lesions suspected of cutaneous melanoma, having a major axis ≤ 6 mm. The patients were selected by a dermatologist (principal investigator) at the Section of Dermatology from INCA or at her private clinic. After approval by the CEP / INCA (n^o 130-30 and addendum 1.123196 June 25, 2015) and signing of the informed consent, the patients were submitted to a questionnaire evaluating demographic data, clinical data of the injury in question and the lesion has been documented clinically and by dermatoscopy. All patients underwent excisional biopsy of the lesions, with safety margins of 2 to 3 mm. The material was collected in a vial containing patient identification and fixative (10% buffered formalin) and sent for histopathological analysis.

Table I: Characteristics of the patients evaluated, 2011 to 2017

	Melanoma N(%)	No melanoma N(%)	p-value
Gender			0.52
Male	56(43.8)	146(40.6)	
Female	72(56.3)	214(59.4)	
Age years			0.002
≤ 30	6(4.7)	51(14.2)	
31 - 50	54(42.2)	167(46.4)	
51 - 70	48(37.5)	115(31.9)	
>70	20(15.6)	27(7.5)	
Age, mean (\pm SD)	53.37(14.66)	46.85(15.59)	<0.001
Phototype			0.68
I	15(11.7)	39(10.8)	
II	76(59.4)	213(59.2)	
III	37(28.9)	104(28.9)	
IV	0(0)	4(1.1)	

Table II - Statistical analysis of the dermoscopic ABC modified 488 melanocytic lesions ≤ 6 mm.

Dermoscopic criteria	Frequency N(%)	Sensitivity %	Specificity %	PPV %	NPV %	Accuracy %
Asymmetry of shape on one axis	224 (45.9)	42	53	24	72	50
Asymmetry of structures on one axis	400 (82)	88	20	28	83	38
Abrupt border in 1/4 of the lesion	284 (58.2)	55	41	25	72	45
Presence of 3 or more colors	368 (75.4)	79	26	27	77	40
Presence of 3 or more dermatoscopic structures	294 (60.2)	67	42	29	78	49

PPV – Positive Predictive Value
 NPV – Negative Predictive Value

RESULTS

A total of 528 lesions were analyzed and 40 cases were excluded. We included 488 melanocytic lesions of 376 patients (median 1 lesion per patient). Age varied from 3 to 91 years (mean 53.37 among patients with melanoma versus 46.85, $p < 0.001$). Women represented 58.6% of the cases and had 72 melanomas (56.3%), but there was no difference ($p = 0.529$) between the sexes (table I). The lesion size ranged from 1 to 6mm, with 74% of lesions smaller or equal to 4mm in diameter. In total, 128 melanomas (26.2% of the lesions) were identified, of which 31 (24.1%) were invasive. Melanomas presented clinical symmetry (A) 54.7%, symmetrical borders (B) 57.2%, single color (C) 60.9% and diameter ≤ 6 mm (D) 100%. The dermoscopic features of the melanocytic lesions are presented on table II. The location in the limbs had a adjusted OR of 2.10 (95% CI 1.31-3.37, $p = 0.002$) and was one of the independent factors for the detection of melanoma ≤ 6 mm in diameter.

CONCLUSION

It was documented the existence of invasive melanomas in pigmented lesions ≤ 6 mm, justifying the importance of dermatoscopy in all pigmented lesions, including clinically symmetric and regular lesions, without the established clinical ABCD for suspicious lesions.



FIGURE 1: Female, 30 years, phototype I, blond hair, green eyes, family history of melanoma, multiple common melanocytic nevi (> 100), multiple dysplastic nevi (> 50), previous sunburns (first degree), dark brown lesion 4mm of diameter on right upper limb, symmetrical, regular borders, unknown progression, clinically suggestive of common nevus.

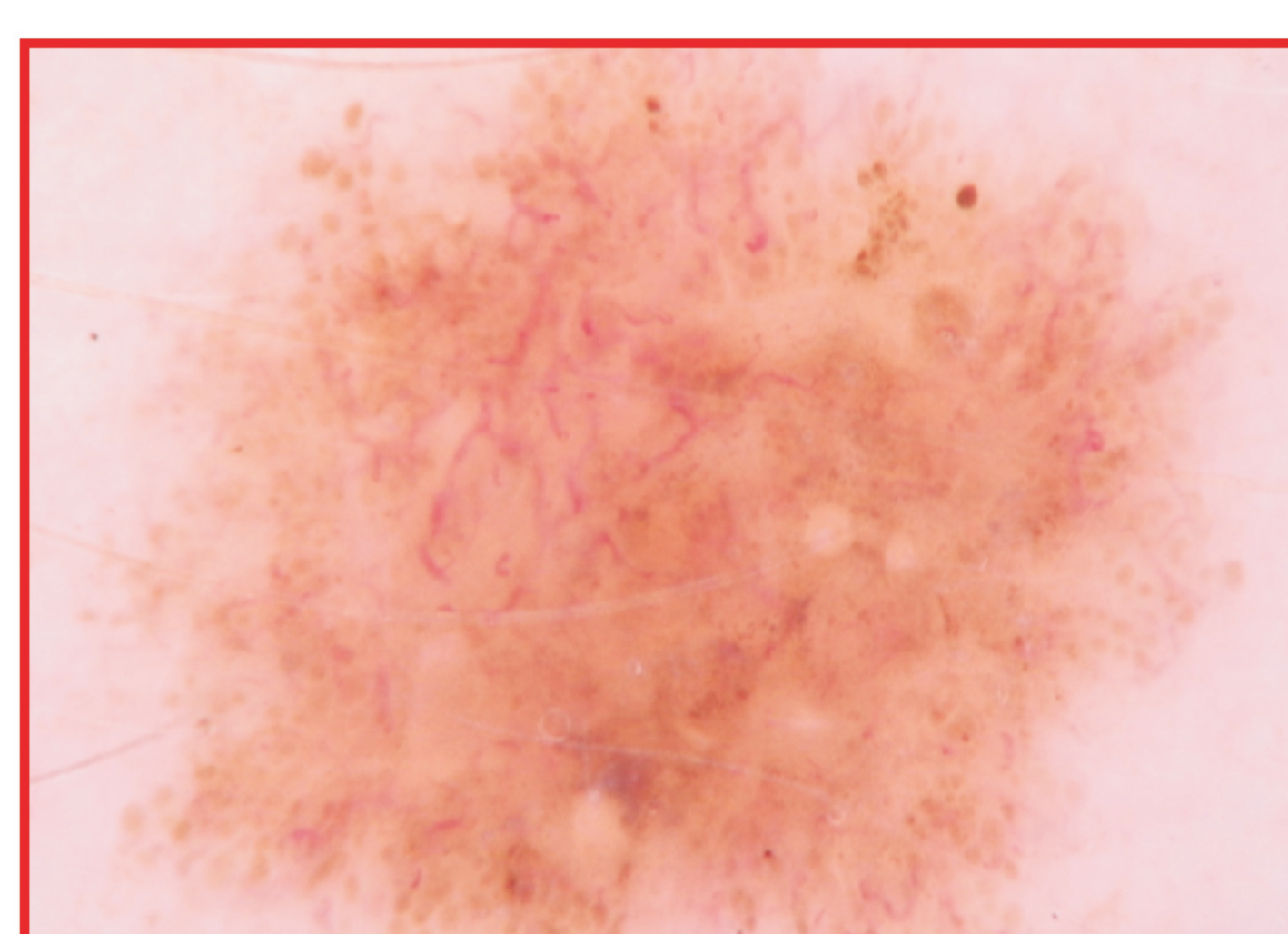


FIGURE 2: Dermoscopy 10X (digital enlargement): Suspected melanocytic lesion!
 Presence of 3 different colors: light brown, dark brown, red.
 Presence of asymmetry of structures on one axis.
 Presence of 3 or more structures: asymmetric atypical pigmented network, globules and brown-erythematous amorphous area.
 Report: Clark III superficial extensive melanoma, Breslow 0.4mm, without ulceration or mitosis.