Dermatoscopic features of 67 excised melanocytic lesions in patients at high risk of cutaneous malignant melanoma in a Brazilian hospital

To the Editor: Dermatoscopy enables early diagnosis of melanoma, reducing morbidity and mortality.[1] The present study evaluated the dermatoscopic features of pigmented lesions excised between January 2015 and March 2021 from patients at high

Table I. Comparative analysis of dermatoscopic features of melanomas versus nevi

	Total	Melanoma		
		No	Yes	
	N = 67	*n* = 47	*n* = 20	
Dermatoscopic features	*n* (%)	*n* (%)	*n* (%)	*P*
Irregular pigment network				
No	18 (26.9)	13 (27.7)	5 (25.0)	.822*
Yes	49 (73.1)	34 (72.3)	15 (75.0)	
Negative pigment network				
No	54 (80.6)	41 (87.2)	13 (65.0)	.047†
Yes	13 (19.4)	6 (12.8)	7 (35.0)	
Irregularly distributed globules/dots at the periphery				
No	34 (50.7)	22 (46.8)	12 (60.0)	.323*
Yes	33 (49.3)	25 (53.2)	8 (40.0)	
Atypical vascular pattern				
No	56 (83.6)	42 (89.4)	14 (70.0)	.072†
Yes	11 (16.4)	5 (10.6)	6 (30.0)	
Regular blotches				
No	56 (83.6)	38 (80.9)	18 (90.0)	.484†
Yes	11 (16.4)	9 (19.1)	2 (10.0)	
Irregular blotches				
No	37 (55.2)	29 (61.7)	8 (40.0)	.102*
Yes	30 (44.8)	18 (38.3)	12 (60.0)	
Multiple colors				
No	35 (52.2)	29 (61.7)	6 (30.0)	.017*
Yes	32 (47.8)	18 (38.3)	14 (70.0)	
Radial streaming				
No	62 (92.5)	44 (93.6)	18 (90.0)	.631†
Yes	5 (7.5)	3 (6.4)	2 (10.0)	
Pseudopods				
No	59 (88.1)	41 (87.2)	18 (90.0)	.999†
Yes	8 (11.9)	6 (12.8)	2 (10.0)	
Peppering				
No	62 (92.5)	44 (93.6)	18 (90.0)	.631†
Yes	5 (7.5)	3 (6.4)	2 (10.0)	
Scar-like depigmentation				
No	49 (73.1)	37 (78.7)	12 (60.0)	.114*
Yes	18 (26.9)	10 (21.3)	8 (40.0)	
Bluish-white veil				
No	64 (95.5)	47 (100)	17 (85.0)	.024†
Yes	3 (4.5)	0	3 (15.0)	

*Pearson's chi-square test.
†Fisher's exact test.

Table II. Monitored lesions and evolutive features: melanomas versus nevi

	Total	Melanoma		
		No	Yes	
	N = 46	*n* = 36	*n* = 10	
Type of change	*n* (%)	*n* (%)	*n* (%)	*P**
Symmetric enlargement				
No	37 (80.4)	28 (77.8)	9 (90.0)	.659
Yes	9 (19.6)	8 (22.2)	1 (10.0)	
Asymmetric enlargement				
No	22 (47.8)	20 (55.6)	2 (20.0)	.074
Yes	24 (52.2)	16 (44.4)	8 (80.0)	
Arising of new structures				
No	23 (50.0)	19 (52.8)	4 (40.0)	.722
Yes	23 (50.0)	17 (47.2)	6 (60.0)	

*Fisher's exact test.

risk of cutaneous malignant melanoma (CMM) followed by a two-step method in the Hospital das Clinicas, Faculty of Medicine of the University of Sao Paulo, Sao Paulo, Brazil. Dermatoscopic images stored in the FotoFinder® dermoscope were analyzed by 3 specialists independently, blinded to the histopathologic diagnosis. They were asked to assess the presence of predefined dermatoscopic features. For the monitored lesions, data were obtained right before excision, and substantial symmetric or asymmetric enlargement and arising of new structures were also evaluated. Divergent answers were discussed until a consensus.

Patients under 18 years old and those with a congenital melanocytic nevus, xeroderma pigmentosum, bullous epidermolysis, ichthyosis, albinos, lesions with low-definition images, or located on the palms, soles, mucosa, and nails were excluded.

The lesions were separated by histopathologic diagnosis (melanoma *vs* nevi) to compare dermatoscopic features. Qualitative variables were represented by absolute and relative frequencies. The Pearson's chi-square test or Fisher's exact test was used to evaluate the correlation between variables. Differences were statistically significant when $P < .05$.

A total of 67 pigmented lesions from 26 patients were included (Table I). Twenty lesions were melanomas, with 80% in situ. The invasive melanomas had a maximum Breslow thickness of 0.5 mm. Melanomas showed 35% of negative pigment network, 70% of multiple colors, and 15% of bluish-white veil. Other dermatoscopic features had $P > .05$.

Forty-six lesions had been monitored for a minimal 3-month interval (Table II). Asymmetric enlargement was present in 80% of the melanomas, suggesting a tendency in this group. No statistically significant differences were observed in evolutive features, which may be explained by the fact that most melanomas arise de novo.[2]

Menzies et al[3] also compared dermatoscopic features of melanomas and nevi. Negative pigment network and bluish-white veil were highly specific for melanomas. Multiple colors were significant among melanomas, and a single-color lesion was correlated with no melanomas.[3]

A Spanish study with 200 CMMs observed bluish-white veil and negative pigment network mainly in invasive melanomas. The multicomponent pattern (multiple colors and structures) was the most common global dermatoscopic feature.[4]

In our study, 3 lesions presented bluish-white veils, all melanomas, although only 1 was invasive. A negative pigment network was observed in 35% of the melanomas and 50% of the invasive ones. This mismatching is probably explained by the few invasive melanomas in our analysis.

A recent review and meta-analyses of total-body photography for the diagnosis of CMM revealed the number needed to excise of 8.6 (range: 2.3-19.6).[1] Our study had the number needed to excise of 3.35, showing good clinical decisions assisting high-risk patients.

Dermatoscopic features can be decisive to biopsy a melanocytic lesion.[2] In our study, negative pigment network, multiple colors, and bluish-white veil were significantly related to melanomas. Our results are in accordance with the literature and suggest that the melanoma-specific criteria might be the same in the Brazilian population.

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Conflicts of interest

None disclosed.

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