**Table S1**. Dermoscopic features classified according to common associations in literature with malignant melanoma (MM) and/or basal cell carcinoma (BCC) diagnoses

| Revised seven-point checklist | Description | References |
|---|---|---|
| Atypical network | Combination of at least two types of pigment network (in terms of color and thickness of the lines) asymmetrically distributed within the lesion. | 1 |
| Blue-white veil | Irregular. structureless area of confluent blue pigmentation with an overlying white 'ground-glass' film. The pigmentation cannot occupy the entire lesion and usually corresponds to a clinically elevated part of the lesion. | 1 |
| Atypical vascular pattern | Linear-irregular vessels. dotted vessels and /or milky-red areas not clearly seen within regression structures | 1 |
| Irregular dots /globules | More than three round to oval structures. brown or black in color. asymmetrically distributed within the lesion. | 1 |
| Irregular streaks | More than three brown to black. bulbous or finger-like projections asymmetrically distributed at the edge of the lesion and not clearly arising from network structures | 1 |
| Irregular blotches | Black. brown and /or gray structureless areas asymmetrically distributed within the lesion. | 1 |
| Regression structures | White scar-like depigmentation and /or blue pepper-like granules usually corresponding to a clinically flat part of the lesion. | 1 |
| **Dermoscopic structures of BCC** | **Description** | **References** |
| Arborizing Vessels | Vessels of large diameter. branching irregularly into finest terminal capillaries. Their color is bright red. being perfectly in focus due to their location on the surface of the tumor. | 2 |
| Superficial (short) fine telangiectasia | Short. fine. focused linear vessels with very few branches. | 2 |
| Blue-gray ovoid nests | Well circumscribed. confluent or near confluent pigmented ovoid or elongated configurations. larger than globules and not intimately connected to pigmented tumor body. | 2 |
| Multiple blue-gray globules | Numerous. loosely arranged round to oval well circumscribed structures. which are smaller than the nests. | 2 |
| In-focus dots | Loosely arranged well-defined small gray dots. which appear sharply in focus. | 2 |
| Maple leaf-like areas | Translucent brown to gray/blue peripheral bulbous extensions that never arise from pigmented network or from adjacent confluent pigmented areas. | 2 |
| Spoke wheel areas | Well-circumscribed radial projections. usually tan but sometimes blue or gray. meeting at an often darker (dark brown. black. or blue) central axis. | 2 |
| Concentric structures | Irregularly shaped globular-like structures with different colors (blue. gray. brown. black) and a darker central area. | 2 |
| Multiple small erosions | Small brown-red to brown-yellow crusts. | 2 |
| **Dermoscopic feature of both BCC and MM** | **Description** | **References** |
| Ulceration | One or more large structureless areas of red to black-red color Loss of the epidermis. usually covered by hematogenous crusts. | 2,3 |
| White-red structureless areas | Translucent to opaque white to red areas. | 2-5 |
| White streaks | Orthogonal short and thick crossing lines seen only with polarized dermoscopy. | 2-6-7 |

**Table S2**. Demographic and clinical details for the included patients.

| | | Total, n (%) 222 (100) | BCC, n (%) 146 (65.8) | MM, n (%) 76 (34.2) | p-value |
|---|---|---|---|---|---|
| Sex, *n (%)* | Female | 109 (49.5) | 76 (52.1) | 33 (43.4) | 0.312 |
| | Male | 111 (50.4) | 70 (47.9) | 41 (53.9) | |
| Mean age* ±*SD* (*range*) | | 62.1 ±15.4 (22.1-97.3) | 64.4 ±15.6 (31.1-97.3) | 58.8±14.8 (22.1-83.1) | 0.005 |
| Location. *n (%)* | Trunk | 130 (58.6) | 89 (61) | 41 (53.9) | 0.313 |
| | Lower limb | 46 (20.7) | 28 (19.2) | 18 (23.7) | |
| | Upper limb | 22 (9.9) | 10 (6.8) | 12 (15.8) | |
| | Neck | 6 (2.7) | 4 (2.7) | 2 (2.6) | |
| | Missing | 18 (8.1) | 15 (10.3) | 3 (3.9) | |
| Clinical features | Skin phototype: | | | | <0.001 |
| | I/II | 116 (61.7) | 89 (75.4) | 27 (38.6) | |
| | III/IV | 72 (38.3) | 29 (24.6) | 43 (61.4) | |
| | Actinic damage in surrounding skin | 109 (58.0) | 69 (58.5) | 40 (57.1) | 0.858 |
| | Ulceration | 48 (25.5) | 39 (33.1) | 9 (12.9) | 0.003 |
| | Scales | 42 (22.3) | 34 (28.8) | 8 (11.4) | 0.015 |
| | Crust | 24 (20.3) | 8 (11.4) | 32 (17.0) | 0.207 |
| | Shiny surface | 112 (59.6) | 82 (69.5) | 30 (42.9) | 0.001 |
| | Hair | 35 (18.7) | 6 (5.1) | 29 (41.4) | <0.001 |
| | Skin markings | 75 (39.9) | 27 (22.9) | 48 (68.6) | <0.001 |
| | Asymmetry | 105 (55.9) | 55 (46.6) | 50 (71.4) | 0.001 |
| | Border irregularity | 76 (40.4) | 35 (29.7) | 41 (58.6) | <0.001 |
| | Color variegation (>2 colors) | 79 (42.0) | 43 (36.4) | 36 (51.4) | 0.004 |
| | Diameter (>6mm) | 124 (66.0) | 71 (60.2) | 53 (75.7) | 0.030 |

*MM*, malignant melanoma; *BCC*, basal cell carcinoma.

* Age was available for 170 patients only.

**Table S3.** Regression analysis of dermoscopic features predictive for an MM diagnosis (Odds ratio >1) or a BCC diagnosis (Odds ratio <1).

| Variable | Odds Ratio | 95% Confidence Interval | p-value |
|---|---|---|---|
| Regression structures | 21.00 | 7.67 - 57.49 | < 0.001 |
| Regular dots/globules | 18.25 | 6.08 - 54.79 | < 0.001 |
| Irregular blotches | 7.00 | 2.60   18.86 | < 0.001 |
| Irregular streaks | 5.34 | 1.32 - 21.61 | 0.019 |
| White-red structureless areas | 4.22 | 1.34 - 13.29 | 0.014 |
| White streaks | 2.48 | 1.05 - 5.84 | 0.037 |
| Spoke-wheel areas | 0.19 | 0.04 - 0.92 | 0.040 |
| In-focus dots | 0.12 | 0.04 - 0.37 | < 0.001 |
| Multiple blue grey globules | 0.11 | 0.04 - 0.29 | < 0.001 |
| Arborizing vessels | 0.08 | 0.03 - 0.21 | < 0.001 |
| Concentric structures | 0.02 | 0.03 - 0.15 | < 0.001 |
| Maple leaf-like areas | 0.02 | 0.00 - 0.08 | < 0.001 |

**Table S4**. Diagnostic accuracy and confidence levels for 2 evaluators, prior to [T0] and following results from this analysis [T1].

| | All lesions | | | BCC | | | MM | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total, *n (%)* | BCC, *n (%)* | MM, *n (%)* | Hypo/Amelanotic-MM-like, *n (%)* | Pigmented-BCC-type, *n (%)* | Mixed, *n (%)* | Hypo/Amelanotic MM, *n (%)* | Pigmented-MM-type, *n (%)* | Pigmented-BCC-like. *n (%)* |
| **Diagnostic accuracy and confidence levels:** | 444 (100) | 292 (65.8) | 152 (34.2) | 87 (29.8) | 65 (22.3) | 140 (47.9) | 21 (13.8) | 74 (48.7) | 57 (37.5) |
| T0, *% (mean level)* | 68.5 (2.9) | 66.8 (2.9) | 71.7 (2.9) | 53.4 (2.7) | 75.8 (3) | 71 (3.1) | 54.2 (2.7) | 82.4 (3) | 64.8 (2.9) |
| T1, *% (mean level)* | 86.9 (3.3) | 90.4 (3.3) | 80.3 (3.3) | 87.5 (3) | 90.9 (3.4) | 92 (3.5) | 54.2 (3.3) | 91.9 (3.4) | 75.9 (3.3) |

*T0*, retrospective blinded evaluator baseline analysis; *T1*, retrospective blinded evaluator analysis following interpretation of results from this study.

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