Dermoscopy report: Proposal for standardization

Results of a consensus meeting of the International Dermoscopy Society

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Background: Dermoscopy can assist clinicians in the evaluation and diagnosis of skin tumors. Since dermoscopy is becoming widely accepted and used in the medical community, there is now the need for a standardized method for documenting dermoscopic findings so as to be able to effectively communicate such information among colleagues.

Objectives: Toward this end, the International Dermoscopy Society embarked on creating a consensus document for the standardization and recommended criteria necessary to be able to effectively convey dermoscopic findings to consulting physicians and colleagues.

Methods: The Dermoscopy Report Steering Committee created an extensive list of dermoscopic criteria obtained from an exhaustive search of the literature. A preliminary document listing all the dermoscopic criteria that could potentially be included in a standardized dermoscopy report was elaborated and presented to the members of the International Dermoscopy Society Board in two meetings of the Society and subsequently discussed via Internet communications between members and the Steering Committee.

Results: A consensus document including 10 points categorized as either recommended or optional and a template of the dermoscopy report were obtained. The final items included in the document are as follows: (1) patient's age, relevant history pertaining to the lesion, pertinent personal and family history (recommended); (2) clinical description of the lesion (recommended); (3) the two-step method of dermoscopy differentiating melanocytic from nonmelanocytic tumors (recommended); (4) the use of standardized terms to describe structures as defined by the Dermoscopy Consensus Report published in 2003. For new terms it would be helpful to provide a working definition (recommended); (5) the dermoscopic algorithm used should be mentioned (optional); (6) information on the imaging equipment and magnification (recommended); (7) clinical and dermoscopic images of the tumor (recommended); (8) a diagnosis or differential diagnosis (recommended); (9) decision concerning the management (recommended); (10) specific comments for the pathologist when excision and histopathologic examination are recommended (optional).

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Limitations: The limitations of this study are those that are intrinsic of a consensus document obtained from critical review of the literature and discussion by opinion leaders in the field.

Conclusions: Although it may be acceptable for a consulting physician to only state the dermoscopic diagnosis, the proposed standardized reporting system, if accepted and utilized, will make it easier for consultants to communicate with each other more effectively. (J Am Acad Dermatol 2007;57:84-95.)

Dermoscopy is a noninvasive, in vivo technique that can assist the clinician in the diagnosis of skin tumors. The dermoscopic structures and colors together with their distribution can often help in differentiating between melanocytic and nonmelanocytic lesions and benign from malignant tumors. Furthermore, dermoscopy can aid in confirming the diagnosis of specific lesions, such as seborrheic keratosis, basal cell carcinoma, hemangiomas, and dermatofibromas. A list of dermoscopic structures, criteria for diagnosis, and diagnostic algorithms has been published by the participants of a dermoscopy consensus meeting.[1]

Since dermoscopy is becoming widely accepted and used in the medical community, there now exists the need for a standardized method for documenting dermoscopic findings so as to be able to effectively communicate such information among colleagues. Toward this end, the International Dermoscopy Society (IDS) embarked on creating a consensus document for standardization and minimal criteria necessary to be able to effectively convey dermoscopic findings to consulting physicians and colleagues.[2-16]

MATERIAL AND METHODS

The project for the dermoscopy report consensus document was proposed at the meeting of the IDS in February 2003 to the Board of the Society. A steering committee was chosen for this endeavor. The work began with an extensive search by the committee to identify publications on dermoscopy. This search included medical databases (MEDLINE, PubMed, and EMBASE) up to January 1987. In addition, the Dermoscopy Report Committee reviewed the reference lists from the retrieved articles, searched personal files, and contacted researchers in the field of dermoscopy to review their methodology for the reporting of dermoscopic examination findings. They reviewed all relevant publications and extracted an extended list of potential items to be considered in a dermoscopy report. Subsequently, the Dermoscopy Report Steering Committee created a preliminary document which was reviewed by all members of the IDS Board. This document was discussed at two meetings of the Society held in Washington, DC, in 2004 and in New Orleans in February 2005. Finally, the document was sent to all IDS members via the Internet for their review and comments. The review process lasted from April 1 to June 31, 2005 and culminated in the creation of the standardized dermoscopy reporting system presented in this article.

RESULTS

Information considered relevant by the majority of IDS Board members has been incorporated into the 10-point dermoscopy report outlined in the following paragraphs. The 10 points were subsequently classified into two categories: "recommended" and "optional." These criteria are summarized in Table I.

Patient's history (recommended)

Information concerning the patient, such as age, personal and family history of skin cancer including melanoma, personal and family history of dysplastic nevi, previous treatments or biopsies performed at the site of the lesion under investigation, number of melanocytic lesions present, Fitzpatrick skin type, and skin photodamage may all be helpful in interpreting the clinical and dermoscopic findings correctly. Furthermore, the patient's history regarding change in shape, size, color, contour, as well as a history of any symptoms within the lesion are important factors necessary for the consultant to render the appropriate management decisions.

The age of the patient may be an important factor. For example, age may affect the interpretation of some pigmented lesions, such as those possessing a globular starburst pattern (ie, melanocytic tumors with spitzoid features).[17] A patient's personal history of melanoma, its thickness, presentation (melanotic vs amelanotic), and subtype can prove important in the detection of subsequent melanomas. Furthermore, previous procedures performed at the site of the lesion under investigation may help correctly classify lesions as "recurrent nevi." In addition, the existence of acute or long-term sun damage is often a confounding factor when evaluating pigmented lesions.[18-20] The complete physical examination, including examination of the pigmented lesions surrounding the lesion under investigation, particularly in the setting of multiple dysplastic nevi, is important since most of the lesions in any

Table I. Dermoscopy report: Minimal criteria suggested by IDS Board members

Main points	Criteria to be reported	Inclusion status*
1. Relevant clinical information about patient	Age, skin type, number of nevi, presence of large nevi, personal or family history of melanoma. In addition, history of change or symptoms of the lesion under investigation.	Recommended
2. Clinical description of lesion	Location, presence of clinical ABCDEs (*a*symmetry, *b*order irregularity, *c*olor variegation, *d*iameter >5 mm, and *e*volution)	Recommended
3. Two-step method	Relevant dermoscopic features to categorize lesion as melanocytic or nonmelanocytic	Recommended
4. Standardized terms	Use of standardized terms for describing dermoscopic structures and patterns (see Table III)	Recommended
5. Algorithm used	Algorithm to differentiate between benign and malignant melanocytic tumors (Tables IV-VII)	Optional
6. Imaging instrument	Type of equipment and magnification used	Recommended
7. Images of tumor	Clinical and/or dermoscopic images	Recommended
8. Diagnosis	Provide a specific diagnosis or a descriptive report and/or a differential diagnosis	Recommended
9. Suggested management	Final recommendations regarding management of lesion (eg, biopsy, excision, follow-up)	Recommended
10. Comments for pathologist	Information that may influence orientation and step-sectioning of specimen	Optional

*Definitions for inclusion status: "Recommended," to be included in all reports; "Optional," to be included in report if possible, albeit not necessary.

given individual show a distinctive clinicodermoscopic pattern,[21] which renders the eventual identification of the so-called ugly-duckling lesion easier.[22] Finally, but most importantly, any history regarding change or symptoms in the lesion under investigation is important and should be specifically noted[23] because it may require increased scrutiny of dermoscopic details and a decreased threshold for recommendation to biopsy.

Clinical description of the lesion (recommended)

The clinical information concerning the tumor, including its location, color, size, elevation, contours, ulceration, and the presence of any of the clinical ABCDE criteria (*a*symmetry, *b*order irregularity, *c*olor variegation, *d*iameter, and evidence of *e*volution) is fundamental for the evaluation of any given lesion, and these clinical data add complementary information to that gleaned by dermoscopy.[24]

The location of the tumor must also be mentioned since dermoscopic patterns and criteria differ on the basis of the location of the lesion. In particular, lesions on the face,[25] scalp,[26] acral skin,[27-29] nails,[30] and mucosa[9,15,31,32] have specific patterns and criteria that are different from those described for the rest of the skin surface.

Finally, the lesion under investigation needs to be viewed in the context of the patient's other lesions, especially when many atypical lesions are present. In the presence of multiple lesions that are morphologically similar, it is useful to focus on the lesion(s) that differ from the surrounding lesions—in other words, the most atypical lesion ("ugly duckling sign").[22] Likewise, in the presence of many morphologically similar nevi, focusing on the most clinically benign-appearing lesion may be useful in discovering hypopigmented or amelanotic melanoma ("Little Red Riding Hood sign").[33,34]

The two-step method to help differentiate melanocytic from nonmelanocytic tumor (recommended)

The two-step method (Fig 1) is a well-established method for the initial evaluation of pigmented lesions since it helps separate lesions into one of two categories—melanocytic or nonmelanocytic. Most nonmelanocytic lesions can easily be classified as basal cell carcinoma,[35] seborrheic keratosis,[36] angioma,[1] or dermatofibroma[37] based on structures seen under dermoscopy. Furthermore, many reports suggest that dermoscopy may be useful for the diagnosis of other benign skin tumors and skin diseases, such as lichen planus–like keratosis,[38] clear-cell acanthoma,[39-41] solar lentigo,[42] eccrine porocarcinoma,[3] Bowen's disease,[43] squamous cell carcinoma,[44] pigmented eccrine porocarcinoma,[45] pigmented eccrine poroma,[46] lichen planus,[47] psoriasis,[48] and scabies,[49,50] just to mention a few.[51-57]

Lesions classified as melanocytic by the two-step approach need to be evaluated further so as to separate them into benign nevi, suspect lesions, or

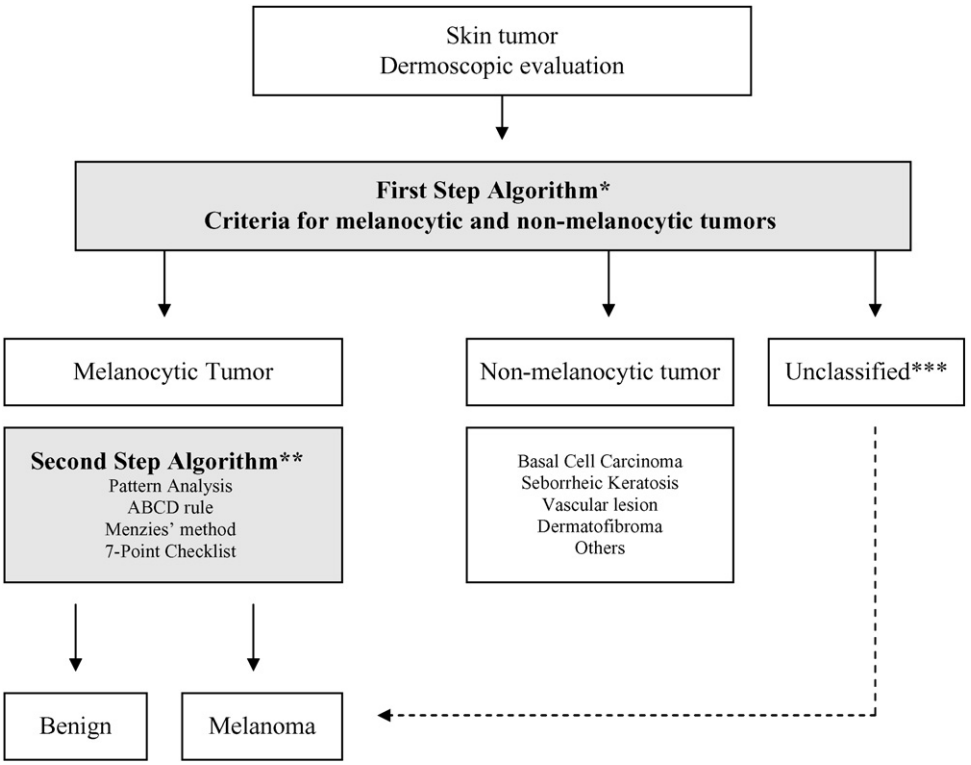


Fig 1. The two-step method as defined by the Consensus Net Meeting on dermoscopy. *, First step: discrimination between melanocytic and nonmelanocytic lesions. **, Second step: discrimination between benign melanocytic lesions and melanomas. ***, In the case of nonspecific criteria or indeterminate pattern, possibility of melanoma exists and should be in differential diagnosis.

Table II. Skin tumors and other skin disorders diagnosed dermoscopy: Literature review

Melanocytic tumors	Nonmelanocytic tumors	Other skin disorders
Melanoma*	Basal cell carcinoma*	Lichen planus
Acquired melanocytic nevi*	Seborrheic keratosis*	Psoriasis
Congenital melanocytic nevi*	Angioma*	Scabies*
	Dermatofibroma*	Lichen aureus
	Lichen planus–like keratoses	Mucosal melanosis
	Clear-cell acanthoma	Actinic porokeratosis
	Solar lentigo	Supplementary nipple
	Eccrine porocarcinoma	Port-wine stains
	Bowen's disease	Cutaneous endometriosis
	Squamous cell carcinoma	Darier's disease
	Pigmented eccrine poroma	Pityriasis rosea

*Indicate presence of well-established criteria reported in multicenter studies.

melanoma. Toward this end many algorithms have been created to help differentiate between melanoma and benign nevi (see step 2 in Fig 1).

Thus, as summarized in Table II, dermoscopy facilitates the diagnosis of various skin tumors and skin disorders,[58-61] and the two-step method is the foundation and starting point from which to begin the evaluation process of skin lesions.

The use of standardized terms to describe structures (recommended)

These terms, as defined by the dermoscopy consensus report published in 2003,[1] are listed with their accompanying definitions in Tables III to VII. Because new terms and structures are continuously being described, it is acceptable to use them as well. For terms not in common use, it would be helpful for

Table III. First-step algorithm for differentiation between melanocytic and nonmelanocytic lesions according to Consensus Net Meeting on Dermoscopy[1]

Dermoscopic criterion	Definition	Diagnostic significance
Pigment network—pseudonetwork*	Network of brownish interconnected lines overlying background of tan diffuse pigmentation. In facial skin a peculiar pigment network, also called pseudonetwork, is typified by round, equally sized network holes corresponding to preexisting follicular ostia	Melanocytic lesion
Aggregated globules	Numerous, variously sized, often clustered, round to oval structures with various shades of brown and gray-black. They should be differentiated from multiple blue-gray globules.	Melanocytic lesion
Streaks	These have been previously described separately as pseudopods and radial streaming, but are now combined into one term. They are bulbous and often kinked or finger-like projections seen at the edge of a lesion. They may arise from network structures but more commonly do not. They range in color from tan to black.	Melanocytic lesion
Homogeneous blue pigmentation†	Structureless blue pigmentation in absence of pigment network or other discernable structures	Melanocytic lesion
Parallel pattern	Seen in melanocytic lesions of palms/soles and mucosal areas. On palms/soles pigmentation may follow sulci or cristae (ie, furrows or ridges) of the dermatoglyphics. Rarely arranged at right angles to these structures.	Melanocytic lesion
Multiple milia-like cysts	Numerous, variously sized, white or yellowish, roundish structures	Seborrheic keratosis
Comedo-like openings	Brown-yellowish to brown-black, round to oval, sharply circumscribed keratotic plugs in the ostia of hair follicles. Irregularly shaped comedo-like openings are also called irregular crypts.	Seborrheic keratosis
Light brown fingerprint-like structures	Light brown, delicate, network-like structures with fingerprint pattern	Seborrheic keratosis
Cerebriform pattern	Dark brown furrows between ridges producing brain-like appearance	Seborrheic keratosis
Arborizing vessels	Tree-like branching telangiectases	Basal cell carcinoma‡
Leaf-like structures	Brown to gray/blue discrete bulbous structures forming leaf-like patterns. They are discrete pigmented nests (islands) never arising from pigment network and usually not arising from adjacent confluent pigmented areas.	Basal cell carcinoma‡
Large blue-gray ovoid nests	Well-circumscribed, confluent or near confluent pigmented ovoid or elongated areas, larger than globules, and not intimately connected to pigmented tumor body	Basal cell carcinoma‡
Multiple blue-gray globules	Multiple globules (not dots) that should be differentiated from multiple blue-gray dots (melanophages).	Basal cell carcinoma‡
Spoke-wheel areas	Well-circumscribed radial projections, usually tan but sometimes blue or gray, meeting at often darker (dark brown, black, or blue) central axis	Basal cell carcinoma‡
Ulceration§	Absence of epidermis often associated with congealed blood, not due to well-described recent history of trauma.	Basal cell carcinoma‡
Red-blue lacunae	More or less sharply demarcated, roundish or oval areas with reddish, red-bluish, or dark-red to black	Vascular lesion
Red-bluish to reddish-black homogeneous areas	Structureless homogeneous red-bluish to red-black areas	Vascular lesion
None of listed criteria	Absence of above-mentioned criteria	Melanocytic lesion

*Exception 1: Pigment network or pseudo-network is also present in solar lentigo and rarely in seborrheic keratosis and pigmented actinic keratosis. A delicate, annular pigment network is also commonly seen in dermatofibroma and accessory nipple (clue for diagnosis of dermatofibroma and accessory nipple: central white scar-like patch).

†Exception 2: Homogeneous blue pigmentation (dermoscopic hallmark of blue nevus) is also seen (uncommonly) in some hemangiomas and basal cell carcinomas and (commonly) in intradermal melanoma metastases.

‡To diagnose a basal cell carcinoma a pigment network must be absent and one or more of the positive features listed here such as spoke-wheel areas or leaf-like areas must be present.[35]

§Exception 3: Ulceration is also seen less commonly in invasive melanoma.

Table IV. Second-step algorithm: Pattern analysis criteria for the dermoscopic differentiation between benign melanocytic lesions and melanoma according to the Consensus Net Meeting on Dermoscopy[1]

Dermoscopic criterion	Definition	Diagnostic significance
Global features		
Reticular pattern	Pigment network covering most parts of the lesion	Melanocytic nevus
Globular pattern	Numerous, variously sized, round to oval structures with various shades of brown and gray-black	Melanocytic nevus
Cobblestone pattern	Large, closely aggregated, somehow angulated globule-like structures resembling a cobblestone	Dermal nevus
Homogeneous pattern	Diffuse, brown, gray-blue to gray-black pigmentation in the absence of other distinctive local features	Melanocytic (blue) nevus
Starburst pattern	Pigmented streaks in a radial arrangement at edge of lesion	Spitz/Reed nevus
Parallel pattern	Pigmentation on palms/soles that follows sulci or cristae (furrows or ridges), occasionally arranged at right angles to these structures	Acral nevus/melanoma
Multicomponent pattern	Combination of $\geq$3 above-listed patterns	Melanoma
Nonspecific pattern	Pigmented lesion lacking above patterns	Possible melanoma
Local features		
Pigment network	Typical pigment network: light to dark brown network with small, uniformly spaced network holes and thin network lines distributed more or less regularly throughout lesion and usually thinning out at periphery.	Benign melanocytic lesion
	Atypical pigment network: black, brown, or gray network with irregular holes and thick lines	Melanoma
Dots/globules	Black, brown, round to oval, variously sized structures regularly or irregularly distributed within lesion	If regular, benign melanocytic lesion If irregular, melanoma
Streaks (pseudopods and radial streaming)	These have been previously described separately as pseudopods and radial streaming. Streaks are bulbous and often kinked or finger-like projections seen at the edge of a lesion. They may arise from network structures but more commonly do not. They range in color from tan to black.	If regular, benign melanocytic lesion (Spitz/Reed nevus) If irregular, melanoma
Blue-whitish veil	Irregular, structureless area of confluent blue pigmentation with an overlying white "ground-glass" film. Pigmentation cannot occupy entire lesion and usually corresponds to a clinically elevated part of the lesion	Melanoma
Regression structures	White scar-like depigmentation and/or blue pepper-like granules usually corresponding to a clinically flat part of the lesion	Melanoma
Hypopigmented areas (structureless/ homogeneous)	Focal areas devoid of structures with less pigmentation than overall pigmentation of lesion and comprising at least 10% of total area	Nonspecific
Blotches	Black, dark brown, and/or gray structureless areas with symmetric or asymmetric distribution within lesion	If symmetric, benign melanocytic lesion If asymmetric, melanoma
Vascular structures	Comma-like vessels	Dermal nevus
	Hairpin vessels	If uniformly distributed, seborrheic keratosis. If irregularly distributed, consider melanoma
	Dotted vessels	Melanoma
	Linear-irregular vessels	Melanoma
	Vessels and/or erythema within regression structures	Melanoma

Table V. Second-step algorithm: ABCD rule for the dermoscopic differentiation between benign melanocytic lesions and melanoma*

Dermoscopic criterion	Definition	Score	Weight factor
*A*symmetry	In 0, 1, or 2 perpendicular axes; assess not only contour, but also colors and structures	0-2	×1.3
*B*order	Abrupt ending of pigment pattern at periphery in 0-8 segments	0-8	×0.1
*C*olor	Presence of up to 6 colors (white, red, light-brown, dark-brown, blue-gray, black)	1-6	×0.5
*D*ermoscopic structures	Presence of network, structureless (homogeneous) areas, branched streaks, dots, and globules	1-5	×0.5

*Formula for calculating total score: [(A score × 1.3) + (B score × 0.1) + (C score × 0.5) + (D score × 0.5)]. Interpretation of total score: <4.75, benign melanocytic lesion; 4.75-5.45, suspect lesion (close follow-up or excision recommended); >5.45, lesion highly suspect for melanoma.

Table VI. Second step algorithm: Menzies scoring method for dermoscopic differentiation between benign melanocytic lesions and melanoma*

Dermoscopic criterion	Definition
Negative features	
Symmetry of pattern	Symmetry of pattern is required across all axes through lesion's center of gravity (center of lesion). Symmetry of pattern does not require shape symmetry.
Presence of a single color	The colors scored are black, gray, blue, dark brown, tan, and red. White is not scored as a color
Positive features	
Blue-white veil	An area of irregular, structureless confluent blue pigmentation with an overlying white "ground-glass" haze. It cannot occupy entire lesion and cannot be associated with red-blue lacunae.
Multiple brown dots	Focal areas of multiple brown (usually dark brown) dots (not globules)
Pseudopods	Bulbous and often kinked projections that are found at the edge of a lesion either directly connected to the tumor body or pigmented network. They can never be seen distributed regularly or symmetrically around the lesion. When connected directly to the tumor body, they must have an acute angle to the tumor edge or arise from linear or curvilinear extensions. When connected to the network, the width of the bulbous ending must be greater than the width of any part of the surrounding network and at least double that of its directly connected network projection
Radial streaming	Finger-like extensions at the edge of a lesion that are never distributed regularly or symmetrically around the lesion
Scar-like depigmentation	Areas of white distinct irregular extensions (true scarring), which should not be confused with hypopigmentation or depigmentation due to simple loss of melanin
Peripheral black dots/globules	Black dots/globules found at or near edge of lesion
Multiple (5 or 6) colors	The colors scored are black, gray, blue, dark brown, tan and red. White is not scored as a color
Multiple blue/gray dots	Foci of multiple blue or gray dots (not globules) often described as "pepper-like" granules in pattern
Broadened network	A network made up of irregular thicker "cords" of the net, often seen focally thicker

*For melanoma to be diagnosed a lesion, both negative features must be absent and one or more of the 9 positive features must be present.

the reporting physician to provide a working definition of the term.

The algorithm used, if any, for differentiating between benign and malignant melanocytic tumors (optional)

Pattern analysis as well as other algorithms (Table VIII) have been created to help differentiate between melanoma and benign melanocytic lesions.[62-70] Four of the algorithms mentioned in Table VIII were evaluated by the participants of the Consensus Net Meeting on Dermoscopy (CNMD)[1]: pattern analysis, ABCD rule of dermoscopy, Menzies' method, and the 7-point checklist. According to the results of the CNMD, the sensitivity for melanoma of these 4 methods was similar, but pattern analysis

Table VII. Second step algorithm: 7-point checklist for dermoscopic differentiation between benign melanocytic lesions and melanoma*

Dermoscopic criterion	Definition	Score
1. Atypical pigment network	Black, brown, or gray network with irregular holes and thick lines	2
2. Blue-whitish 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	2
3. Atypical vascular pattern	Linear-irregular or dotted vessels not clearly seen within regression structures	2
4. Irregular streaks	Brown to black, bulbous or finger-like projections irregularly distributed at the edge of a lesion. They may arise from network structures but more commonly do not.	1
5. Irregular dots/globules	Black, brown, round to oval, variously sized structures irregularly distributed within lesion	1
6. Irregular blotches	Black, brown, and/or gray structureless areas asymmetrically distributed within lesion	1
7. Regression structures	White scar-like depigmentation and/or blue pepper-like granules usually corresponding to a clinically flat part of the lesion	1

*By simple addition of the individual scores a minimum total score of 3 is required for the diagnosis of melanoma, whereas a total score of less than 3 is indicative of nonmelanoma.

demonstrated a better specificity as compared with the ABCD rule, Menzies' method, and the 7-point checklist.

The imaging equipment and magnifications utilized (recommended)

It is recommended that technical information be included in the report to provide information that might be of interest to the referring colleagues. Knowledge of the type of equipment used could prove crucial in interpreting sequential images obtained for the purpose of comparison. The type of illumination (eg, incandescent vs light-emitting diode, cross-polarization) and the spectral band used can affect the ability to visualize certain structures and colors, which in turn can influence the diagnosis.[71] We suggest that at least the brand name of the instrumentation and its manufacturer be included (eg, MoleMax II, Derma Medical Systems; Fotofinder, Teachscreen; DermLite, 3GEN; Delta 20, Heine).

Clinical and dermoscopic images of the tumor (recommended)

Clinical and dermoscopic images of the lesion can be a great aid for documentation and can help in clinical-dermoscopy-pathology correlations.[72-75] The images should ideally include the following: (1) overview image of the pertinent body sector—especially recommended in cases in which multiple pigmented lesions are present; (2) close-up clinical image of the tumor; and (3) dermoscopic image of the lesion. Finally, by providing an image it may be acceptable to omit points 3 through 5 mentioned in the preceding paragraphs and just provide a differential diagnosis.

Table VIII. Methods for the diagnosis of melanoma by dermoscopy

Method	Authors	Evaluated by the CNMD
Pattern analysis	Pehamberger, Steiner, and Wolff[62] Kenet et al[63] Argenziano et al[1]	Yes
ABCD rule	Stolz et al[64]	Yes
ABCD(E)	Kittler et al[65]	No
A(A)BCDE	Blum, Rassner, and Garbe[66]	No
Menzies' method	Menzies, Ingvar, and McCarthy[67]	Yes
7-point checklist	Argenziano et al[68]	Yes
7 features for melanoma	Dal Pozzo, Benelli, and Roschetti[69]	No
3-point checklist	Soyer et al[70]	No

CNMD, Consensus Net Meeting on Dermoscopy.[1]

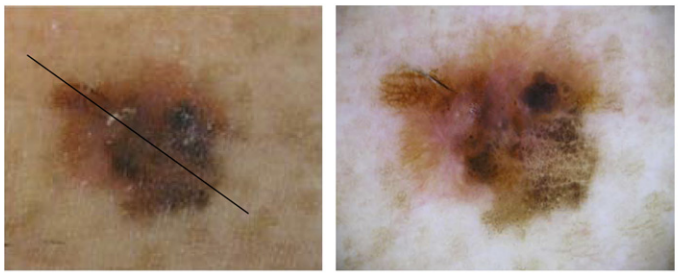
Diagnosis or differential diagnosis (recommended)

Based on clinical data and evaluation of the clinical and dermoscopic images, a final diagnosis should be rendered. In cases in which a specific diagnosis cannot be made, a differential diagnosis or descriptive report should be provided (ie, melanocytic lesion with clinical and/or dermoscopic atypical features or melanocytic skin lesion with multiple blue dots suggestive of regression).

Decision concerning the management of each lesion (recommended)

Final recommendations concerning management of any given lesion (ie, biopsy, excision, periodic follow-up, self-skin examination with follow-up only if the patient notices a change) should be based

1. **Patient's history**:
   - 1.1. Age: 35 year-old male
   - 1.2. Atypical mole syndrome (AMS): yes (>50 nevi). No previous excisions.
   - 1.3. Sundamage: severe with sunburn episodes on the trunk, face and upper extremities. Skin type II. Last episode of intense sun exposure was 6 months ago.
   - 1.4. Familial history: no previous skin cancer nor AMS.
   - 1.5. History pertaining to the lesion: change in size (increase) and colors in recent months. Previous history of bleeding.
2. **Clinical description of the lesion:**
   - 2.1. Location: anterior trunk
   - 2.2. Color: light and dark brown, pink, reddish, black to bluish
   - 2.3. Size: 7 x 9 millimeters
   - 2.4. Elevation: discretely palpable. No nodules
   - 2.5. Contours: irregular shape and ill-defined cut-off
   - 2.6. Ulceration: no
   - 2.7. "ugly-duckling": yes.
3. **The two-step method of dermoscopy:**
   - 3.1. criteria of melanocytic tumor: yes (aggregate of globules, pigment network)
   - 3.2. criteria of non-melanocytic tumor: no
4. **Dermoscopic description:** asymmetry (2 axes), multiple colors (red, blue-gray, dark brown, light brown, black); dermoscopic structures: atypical globules and dots, homogeneous area, atypical vessels, atypical network, regression structures (blue dots).
5. **The algorithm used:** pattern analysis.
6. **Imaging equipment and magnification**: DermLite (10x) and DermLite Foto .
7. **Clinical and dermoscopic images of the tumor:** included



8. **Diagnosis**: thin malignant melanoma with regression structures.
9. **Suggested management:** surgical excision with 2 mm margins and subsequent histopathologic examination
10. **Specific comments for the pathologist:** asymmetrical lesion with regression structures and focal presence of pigment network and globules. Previous bleeding (ulceration). Recommended initial sectioning following the line of the major axis (see in the clinical picture included in the report). Multiple step-sectioning recommended.

Fig 2. Template of a dermoscopy report proposed by the consensus work of the IDS Board.

on the features of the lesion and the patient's history as described in points 1 through 8 above.

If total-body photography and/or digital dermoscopy follow-up is performed, the recommended interval for a new examination should be outlined in the report.

Specific comments, if deemed necessary, for the pathologist when excision and histopathologic examination is performed (optional)

Dermoscopy allows submacroscopic observation of pigmented skin lesions at the level of the epidermis, the dermoepidermal junction, and the papillary dermis, thereby linking the macroscopic clinical examination to the microscopic histopathologic evaluation. Precise histopathologic correlates to the various dermoscopic criteria have already been established.[72-76] Dermoscopy allows for the observation of pigmented skin lesions in the horizontal plane, whereas histopathologic evaluation of a lesion is usually made in the vertical plane. This difference can be considered complementary with dermoscopy providing useful additional information, not only to the clinician but also to the pathologist. Relevant dermoscopic information, such as dermoscopic asymmetry as well as focal areas of regression,[77] ulceration, or other areas of concern should be mentioned in the report so that the pathologist can section the lesion accordingly.[71]

An example of a standardized dermoscopy report according to the recommendations of the IDS is represented in Fig 2.

DISCUSSION

The guiding principle in the development of this dermoscopy consensus document was to select the most relevant items, based on scientific evidence and expert experience, to be included in the final report. The 10-point template was designed so as to be able to communicate vital information concerning the patient and a given tumor. The Dermoscopy Report Steering Committee believes that having a standardized dermoscopy reporting system with standard criteria will make it easier for consultants to communicate their findings both in the clinical and telemedicine arenas.

The items included in the checklist and the template proposed in the document are the result of a critical review of the literature pertaining to dermoscopy and management of patients with atypical mole syndrome. This is a consensus document elaborated by a steering committee on behalf of the Board of the IDS. We arranged the points deemed pertinent under headings corresponding to a logical medical report. Individual physicians may decide to utilize this order or may rearrange the order to suit their needs. It must be stressed that the labeling of steps as "recommended" or "optional" may change over time as new knowledge and insights are gained into the field of dermoscopic evaluation of lesions. Furthermore, the 10-point report does not have to be generated for every lesion viewed by a physician during a general physical examination. During the routine examination of multiple lesions, it is acceptable to report findings in general terms such as "clinical and dermoscopic examination failed to reveal any lesions with features worrisome for melanoma," "the clinical and dermoscopic examinations are consistent with a benign nevus," etc. However, the proposed reporting system should be considered for lesions deemed to be suspect, identified as outliers, slated for short-term mole monitoring, and those that were specifically sent for consultation.

In conclusion, the purpose of the dermoscopy report consensus document is to provide guidelines and improve the quality of the reporting of dermoscopic findings. It is the hope of the IDS that this standardized dermoscopy reporting system be embraced by those using dermoscopy. Although it may be acceptable for a consulting physician to only state the dermoscopic diagnosis, the IDS consensus members suggest that consultants consider using the proposed standardized reporting system set forth in this article. The proposed standardized reporting system is by no means mandatory but, if accepted and utilized, will make it easier for consultants to communicate with each other more effectively.

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