



Supplementary Material

Dermoscopy of Cutaneous Neoplasms in Skin of Color – A Systematic Review by the International Dermoscopy Society “Imaging in Skin of Color” Task Force

Nkechi Anne Enechukwu, Biswanath Behera, Delaney D Ding, Aimilios Lallas, Payal Chauhan, Soumil Khare, Martyna Sławińska, Bengu Nisa Akay, Balachandra S Ankad, Yasmeen J Bhat, Abhijeet Kumar Jha, Feroze Kaliyadan, Awatef Kelati, Shekhar Neema, Nisha V Parmar, Jennifer Stein, Richard P Usatine, Keshavamurthy Vinay, Adebola Olufunmilayo Ogunbiyi, Enzo Errichetti

Supplemental Table S1. Summary of dermoscopic features of skin neoplasms in skin of color (continued)

Tumor	Studies (First author, year and corresponding reference)	Dermoscopic findings (prevalence in percentage)	Corresponding terminology (descriptive) based on International Dermoscopy Society criteria for tumors validated for skin of color	Histological correlates	Dermoscopic setting (polarization or not/magnification)	Cases (n)	Type of study	Level of evidence	Skin phototype
Melanocytic neoplasms									
<i>Melanocytic nevi</i> <i>Axial melanocytic nevi</i>	Madankumar R, et al. 2016 ¹²	<ul style="list-style-type: none"> Parallel furrow (43%) Lattice-like (13%) Fibrillar (7%) Homogenous (10%) Parallel ridge (1%) 	<ul style="list-style-type: none"> Lines, parallel, thin, in the furrows Lines, parallel, thin, in the furrows and crossing the ridges Lines, parallel, short, crossing ridges Structureless Lines, parallel, thick, on the ridges 	<ul style="list-style-type: none"> NS NS NS NS NS 	NS/NS	396 lesions	CS	V	IV-VI
<i>Melanocytic nevi</i> <i>Blue nevi</i>	De Giorgi V, et al. 2006 ¹¹	<ul style="list-style-type: none"> Homogeneous bluish pigmentation in the absence of other dermoscopic features (100.0%) 	<ul style="list-style-type: none"> Structureless, blue 	<ul style="list-style-type: none"> NS 	NS/NS	4	CS	V	NS ("Black people")
<i>Melanocytic nevi</i> <i>Melanocytic nevi (not considering specific sites or histological types)</i>	Lallas A, et al. 2014 ⁹	<p>Morphological pattern</p> <ul style="list-style-type: none"> Globular (V 15.4%; VI 12.5%) Reticular (V 44.7%; VI 33.3%) Structureless (V 18.9%; VI 40.3%), Globular + reticular (V 3.5%; VI 13.9%) Globular + structureless (V 4.4%; VI 0.0%) Reticular + structureless (V 13.2%; VI 0.0%) <p>Pigment distribution</p> <ul style="list-style-type: none"> Uniform (V 61.4%; VI 84.7%) Central hyperpigmentation (V 28.9%; VI 4.2%), 	<ul style="list-style-type: none"> Clods, small, round or oval Lines, reticular Structureless Clods, small, round or oval + lines, reticular Clods, small, round or oval + structureless Lines, reticular + structureless NA NA 	<ul style="list-style-type: none"> NS NS NS NS NS NS NS NS 	NS/NS	300	C-C	IV	V,VI

		<ul style="list-style-type: none"> • Central hypopigmentation (V 1.8%; VI 0.0%), • Peripheral hyperpigmentation (V 0.9%; VI 2.8%), • Patchy (V 6.1%; VI 6.9%) • Unspecific (V 0.9%; VI 1.4%) <p>Color</p> <ul style="list-style-type: none"> • White (V 0.0%; VI 1.4%) • Red (V 0.0%; VI 1.4%) • Light brown (V 7.9%; VI 28.0%) • Dark brown (V 89%; VI 55.5%) • Blue (V 7.0%; VI 22.2%) • Grey (V 9.6%; VI 23.6%) • Black (V 22.4%; VI 66.7%) 	<ul style="list-style-type: none"> • NA • NA • NA • NA • White • Red • Brown • Brown • Blue • Grey • Black 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS 						
Tuma B <i>et al.</i> 2015 ¹⁰	<p>Morphological pattern</p> <ul style="list-style-type: none"> • Reticular (66.2%) • Reticular/structureless (14.1%) • Structureless (8.8%) • Globular structureless (2.7%) • Globular-reticular (2.7%) • Reticular-globular (2.4%) • Globular (2.1%) • Starburst (1.1%) <p>Pigment distribution</p> <ul style="list-style-type: none"> • Uniform (64.4%) • Central hyperpigmentation (18.9%), • Multifocal hypo/hyperpigmentation (10.6%) • Eccentric hyperpigmentation (5.9%), • Central hypopigmentation (0.3%) <p>Color</p> <ul style="list-style-type: none"> • Dark brown (41.8%) 	<ul style="list-style-type: none"> • Lines, reticular • Lines, reticular/structureless • Structureless • Clods, small, round or oval/structureless • Clods, small, round or oval/lines, reticular • Lines reticular/clods, small, round or oval • Clods, small, round or oval • Pseudopods, circumferential or lines, radial, circumferential • NA • NA • NA • NA • NA • Brown 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS 	NS/NS	376	C-C	IV	V,VI		

<i>Basal cell carcinoma (BCC)</i>	Behera B, <i>et al.</i> 2021 ¹⁴	<p>Classic BCC-associated features</p> <ul style="list-style-type: none"> • Ulceration (48.4%) • Maple leaf-like area (61.7%) • Brown to blue-gray ovoid nest (33.4%) • Brown to blue-gray globule (18.4%) • Arborizing vessels (20.0%) • Spoke wheel area (26.7%) <p>Non classic BCC-associated features</p> <ul style="list-style-type: none"> • Multiple small erosions (31.7%) • Short fine telangiectasias (46.7%) • Concentric structure (13.3%) 	<ul style="list-style-type: none"> • Erosion/ulceration • Lines, radial, connected to a common base • Clods, blue to brown, large, clustered • Clods, brown-blue, small • Branched vessels • Lines, radial, converging to a central dot or clod • Erosions/ulcerations • NA • Circles, concentric 	<ul style="list-style-type: none"> • NS • Basaloid lobules near the dermo-epidermal junction • Large basaloid lobules • NS • NS • NS • NS • Small tumor nests with darkly pigmented centers arising from (and connected to) the epidermis • Free pigment or melanophages/small aggregates of pigmented neoplastic tumor cells • NS 	Nonpolarized/x10	60 lesions from 35 patients	CS	V	IV, V
		<ul style="list-style-type: none"> • In-focus dot (3.3%) • Red-white homogenous area (40.0%) <p>Nonspecific features</p> <ul style="list-style-type: none"> • Blue-white veil (53.4%) • Brown to blue-gray aggregate/ coarse peppering (43.4%) • Brown to blue-gray fine peppering (68.4%) 	<ul style="list-style-type: none"> • Dot, non-specified color • Structureless zone, red-white • Structureless zone, blue • Dots, gray, blue or black • Dots, gray, blue or black 	<ul style="list-style-type: none"> • Heavily pigmented dermal melanocytes and/or melanophages or melanin combined with compact orthokeratosis • NS 					

Manci R, <i>et al.</i> 2022 ¹³	<ul style="list-style-type: none"> • Loss of normal background pigmentation and network (72.2%) • Milky red area (66.7%) • Accentuated normal background pigmentation network surrounding the lesion (55.6%) • Leaf-like areas (50.0%) • Blue-gray ovoid nests (50.0%) • Multiple blue-gray dots and globules (50.0%) • Shiny white blotches and strands (50.0%) • Central hypopigmentation (33.3%) • Spoke-wheel like structures (22.2%) • Scale and/or crust (11.1%) • Multiple aggregated yellow-white (MAY) globules (5.6%) • Milky white areas (5.6%) • Ulceration (5.6%) • Peripheral hypopigmentation (5.6%) 	<ul style="list-style-type: none"> • NA • NA • Lines, reticular and thick (perilesional) • Lines, radial, connected to a common base • Clods, blue, large, clustered • Dots, blue and clods, blue, small • Clods, white, shiny • Structureless zone, white, central • Lines, radial, converging to a central dot or clod • NA • NA • Structureless zone, white • Erosions/ulcerations • NA 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS 	NS/NS	18 lesions from 5 patients	CS	V	NS (“Subjects who self-identified as black”)
Kimmera B, <i>et al.</i> 2020 ¹⁶	<p>Pigmented BCC</p> <ul style="list-style-type: none"> • Absence of pigmentary network (100.0%) • Peripheral maple leaf-like structures (100.0%) • Blue-gray structureless areas (100.0%) • Multiple spoke wheel-like structures (100.0%) • Blue-white veil (100.0%) • Adherent fabric fibers (100.0%) • Brown dots (100.0%) • Erosions (100.0%) • Adherent and shiny white chrysalis-like structures (100.0%) 	<ul style="list-style-type: none"> • NA • Lines, radial, connected to a common base • Structureless zone, blue • Lines, radial, converging to a central dot or clod • Structureless zone, blue • NA • Dots, brown • Erosions/ulcerations • Lines, white, perpendicularly 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS • NS • NS • NS • NS 	Polarized/x10	1	CR	V	NS (“Brown skin”)

<i>Keratoacanthoma</i>	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> • Crust (orange, white, yellow) (NS) • Central white areas (NS) • Linear irregular vessels (NS) • Radially arranged hairpin vessels (NS) • Blood spots (NS) • Brown areas (NS) 	<ul style="list-style-type: none"> • NA • Structureless, white (central) • Serpentine vessels • Looped vessels, radial • NA • Structureless zone, brown 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS • NS 	Polarized-nonpolarized/NS	3	CS	V	NS (“Brown skin”)
<i>Seborrheic keratosis (SK)</i> <i>Classic SK</i>	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> • Moth-eaten borders (NS) • Comedo-like openings (NS) • Milia-like cysts (NS) • Fat fingers (NS) • Cerebriform pattern (NS) • Fingerprint patterns (NS) • “Parchment-like” thick crust (NS) • Surface white scaling (NS) • Hairpin vessels not evident in all the lesions (NS) 	<ul style="list-style-type: none"> • Sharply demarcated, scalloped border • Clods, brown, yellow, or orange (rarely black) • Dots or clods, white, clustered or disseminated • Lines, curved and thick • Lines, curved and thick • Lines, brown, curved, parallel, thin • NA • NA • Looped vessels 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS 	Polarized-nonpolarized/NS	15	CS	V	NS (“Brown skin”)
	De Giorgi V, <i>et al.</i> 2006 ¹¹	<ul style="list-style-type: none"> • Milia-like cysts (NS) • Pseudofollicular openings (NS) • Absence of pigmented network (NS) 	<ul style="list-style-type: none"> • Dots or clods, white, clustered or disseminated • NA • NA 	<ul style="list-style-type: none"> • NS • NS • NS 	NS/NS	15	CS	V	NS (“Black people”)
<i>Seborrheic keratosis</i> <i>Dermatosis papulosa nigra</i>	Bhat RM, <i>et al.</i> 2017 ¹⁷	<ul style="list-style-type: none"> • Fissures and ridges (59.0%) • Comedo-like openings (27.0%) • Milia-like cysts (8.0%) 	<ul style="list-style-type: none"> • Lines, curved and thick • Clods, brown, yellow, or orange (rarely black) • Dots or clods, white, clustered or disseminated 	<ul style="list-style-type: none"> • NS • NS • NS 	NS/NS	100	CS	V	NS (Literature from India)

		<ul style="list-style-type: none"> • Irregular peripheral pigmented streaks (100.0%) • Linear brown regular globules (100.0%) • Linear and clustered light brown regular globules on the lower two thirds (100.0%) • Patches of clustered glomerular vessels (100.0%) • Structureless hypopigmented central area (100.0%) 	<ul style="list-style-type: none"> • Lines, radial (always at periphery) • Clods, brown • Clods, brown • Coiled vessels • NA 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS 	NS/NS	1	CR	V	IV	
	Vivan MM, et al. 2017 ²⁰	<ul style="list-style-type: none"> • Amorphous light brown area adjacent to a dark brown area (100.0%) • Irregularly distributed globules (100.0%) • Streaks (100.0%) • Grayish-black portions (100.0%) 	<ul style="list-style-type: none"> • NA • Clods • Lines, radial (always at periphery) • Structureless, gray-black 	<ul style="list-style-type: none"> • NS • NS • NS • NS 	NS/NS	7	CS	V	NS (“Subjects who self-identified as black”)	
<i>Squamous cell carcinoma (SCC)</i>	Manci R, et al. 2022 ¹³	<p>Pigmented SCC (N=3)</p> <ul style="list-style-type: none"> • Adherent scales with pigment (100.0%) • Peripheral hypopigmentation (100.0%) • Loss of pigmented network seen in surrounding skin (100.0%) • White circles (33.3%) • Milky-red areas (33.3%) <p>Non-pigmented SCC (N=4)</p> <ul style="list-style-type: none"> • Adherent white scale (100.0%) • White circles (75.0%) • Ulceration (75.00) • Peripheral hypopigmentation, loss of pigmented network seen in surrounding skin (50.0%) • Dotted vessels (50.0%) • Serpentine vessels (25.0%) <ul style="list-style-type: none"> • Shiny white strands (25.0%) • Peripheral islands of hyperpigmentation (25.0%) 	<ul style="list-style-type: none"> • NA • NA • NA • Circles, white • NA • NA • Circles, white • Erosions, ulcerations • NA • Dots, vessels • Linear, irregular • Clods, white, shiny • NA 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS 	NS/NS					

	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> • White structureless areas (NS) • Prominent atypical, dotted and irregular vessels (NS) • White circles or pearls (NS) • Color patterns: white structureless areas, red homogenous areas (NS) • Vessels: dotted, irregular, atypical/looped/unspecific (NS) • Blood spots (NS) • Ulceration (NS) 	<ul style="list-style-type: none"> • Structureless, white • Dots, vessels • Circles, white • Structureless, white • Vessels: dots, serpentine, looped • NA • Erosions, ulcerations 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS • NS • NS 	Polarized-nonpolarized/NS	4	CS	V	NS (“Brown skin”)	
Adnexal cutaneous neoplasms										
<i>Apocrine hidrocystoma</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Grey homogenous area (100.0%) • Peripheral erythema (25.0%) • Light brown peppering (12.5%) • Arborizing vessels (12.5%) 	<ul style="list-style-type: none"> • Structureless, gray • NA • Dots, brown • Branched vessels 	<ul style="list-style-type: none"> • NS • NS • NS • NS 	Nonpolarized/x10	8 lesions from 1 patient	CS	V	IV, V	
	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> • Yellowish-brown homogenous area covering whole lesion (NS) • Linear irregular vessels running across the lesion (NS) • White globules (NS) 	<ul style="list-style-type: none"> • Structureless, yellow-brown • Serpentine vessels • Clods, white 	<ul style="list-style-type: none"> • NS • NS • NS 	Polarized-nonpolarized/NS	2	CS	V	NS (“Brown skin”)	
<i>Dilated pore of Winer</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Central black keratotic plug (100.0%) • Bluish white homogenous area (100.0%) 	<ul style="list-style-type: none"> • Follicular plug • Structureless zone, blue 	<ul style="list-style-type: none"> • NS • NS 	Nonpolarized/x10	2	CS	V	IV, V	
	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Skin-colored homogenous area (100.0%) 	<ul style="list-style-type: none"> • Structureless area, brown 	<ul style="list-style-type: none"> • NS 	Nonpolarized/x10	6 lesions from 1 patient	CS	V	IV, V	
<i>Eccrine hidrocystoma</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Cobblestone pattern (100.0%) • Greyish-white to yellow structureless area (100.0%) • Interlacing white lines forming a network-like pattern (100.0%) • Prominent eccrine duct openings (100.0%) 	<ul style="list-style-type: none"> • Clods, brown or skin colored, large and polygonal • Structureless zone, gray, white, or yellow • NA • Dots, white 	<ul style="list-style-type: none"> • NS • NS • NS • NS 	Nonpolarized/x10	1	CR	V	IV, V	
	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Multiple comedo-like openings (100.0%) • Brown keratotic plugs (100.0%) 	<ul style="list-style-type: none"> • Clods, brown, yellow, or orange (rarely black) • Follicular plugs 	<ul style="list-style-type: none"> • NS • NS 	Nonpolarized/x10	1	CR	V	IV, V	

<i>Nevus sebaceous</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Papillary to knob-like pattern (42.8%) • Cerebriform pattern (14.3%) • Yellow to grey background (42.8%) • Yellow to yellow-white homogenous area (42.8%) • Ovoid nest (42.8%) • Linear irregular crypts (28.6%) • Milia-like cysts (14.3%) • Hairpin vessels (14.3%) • Linear vessels (14.3%) 	<ul style="list-style-type: none"> • NA • Lines, curved and thick • Structureless, yellow-gray • Structureless, yellow, yellow-white • Clods, large • Lines, curved and thick, in combination with clods • Dots or clods, white, clustered or disseminated • Looped vessels • Linear vessels 	<ul style="list-style-type: none"> • Acanthotic and papillomatous epidermis • NS • NS • NS • Keratin-filled epidermal invagination • NS • NS • NS • NS 	Nonpolarized/x10 7	CS	V	IV, V
<i>Nodular hidradenoma</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • White to grey structureless area (100.0%) • Scales (100.0%) • Erosion (100.0%) • Blue-grey peppering (100.0%) • Polymorphous vascular pattern (linear, linear branching and linear curved (hairpin) vessels (100.0%)) 	<ul style="list-style-type: none"> • Structureless, white-gray • NA • Erosions/ulcerations • Dots, gray or blue • Polymorphous vessels 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS 	Nonpolarized/x10 1	CR	V	IV, V
<i>Pilomatrixoma</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Skin-colored to yellow homogenous area (100.0%) • Pigment network-like area (100.0%) 	<ul style="list-style-type: none"> • Structureless, brown/yellow • Lines, reticular 	<ul style="list-style-type: none"> • NS • NS 	Nonpolarized/x10 1	CR	V	IV, V

<i>Poroma</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> Diffuse white structureless area (100.0%) Focal yellow to yellow-brown structureless area (50.0%) Brown to blue-gray blotch (25.0%) Branched vessels with a round ending (100.0%) Linear vessels (50.0%) Hairpin vessel (50.0%) Polymorphous vascular pattern (50.0%) 	<ul style="list-style-type: none"> Structureless area, white Structureless, yellow/yellow-brown Structureless zone, brown or blue-gray Branched vessels Linear vessels Looped vessel Polymorphous vessels 	<ul style="list-style-type: none"> NS NS NS NS NS NS NS 	Nonpolarized/x10 4	CS	V	IV, V
<i>Reactive eccrine syringofibroadenoma</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> Grey to greyish-white structureless area separated by white collarette (100.0%) Cobblestone pattern (100.0%) Yellow-white crust (NS) 	<ul style="list-style-type: none"> Structureless, gray/gray- white Clods, large and polygonal NA 	<ul style="list-style-type: none"> NS NS NS 	Nonpolarized/x10 2	CS	V	IV, V
<i>Sebaceous adenoma</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> Yellow to yellow-brown homogenous area (100.0%) Blue-grey globule (100.0%) Fine brown peppering (100.0%) Linear vessels (100.0%) 	<ul style="list-style-type: none"> Structureless, yellow/yellow-brown Clods, small, round or oval (blue-grey) Dots, brown Linear vessels 	<ul style="list-style-type: none"> NS NS NS NS 	Nonpolarized/x10 1	CR	V	IV, V
<i>Sebaceous hyperplasia</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> Yellow to yellow-brown homogenous area (100.0%) Single to multiple puncta (100.0%) Crown vessels (46.2%) Linear branching vessels (3.8%) Fine brown to blue-grey peppering (30.8%) 	<ul style="list-style-type: none"> Structureless, yellow/yellow-brown NA Linear vessels, radial Branched vessels Dots, gray or blue 	<ul style="list-style-type: none"> Increased basal pigmentation along with sebaceous gland proliferation Sebaceous duct opening NS NS NS 	Nonpolarized/x10 26 lesions from 6 patients	CS	V	IV, V
	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> Yellow globules (NS) Crown vessels (linear vessels running from periphery to the centre) (NS) Pale yellow globules surrounded by pale white septa (NS) Patulous follicles (NS) 	<ul style="list-style-type: none"> Clods, yellow Linear vessels, radial Clods, yellow NA 	<ul style="list-style-type: none"> NS NS NS NS 	Polarized-nonpolarized/NS 2	CS	V	NS ("Brown skin")

<i>Trichoblastoma</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Skin-colored homogenous area (100.0%) • Milia-like cysts (100.0%) • Focal white homogenous area (100.0%) 	<ul style="list-style-type: none"> • Structureless, brown • Dots or clods, white • Structureless, white 	<ul style="list-style-type: none"> • NS • NS • NS 	Nonpolarized/x10	1	CR	V	IV, V
<i>Trichoepithelioma (familial)</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Skin-colored homogenous area with milia-like cysts (100.0%) • Focal white homogenous area (50.0%) • Arborizing vessels (50.0%) • Linear vessels (75.0%) • Crown vessels (25.0%) • Fine brown peppering (100.0%) 	<ul style="list-style-type: none"> • Structureless zone, brow + dots or clods, white, clustered or disseminated • Structureless zone, white • Branched vessels • Linear vessels • Linear vessels, radial • Dots, brown 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS 	Nonpolarized/x10	4	CS	V	IV, V
<i>Trichoepithelioma (solitary)</i>	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Skin-colored to white homogenous area (100.0%) • Milia-like cysts (100.0%) • Fine brown peppering (33.3%) • Linear vessels (16.6%) 	<ul style="list-style-type: none"> • Structureless, brown/white • Dots or clods, white, clustered or disseminated • Dots, brown • Linear vessels 	<ul style="list-style-type: none"> • NS • Dermal keratocysts • NS • NS 	Nonpolarized/x10	6 lesions from 5 patients	CS	V	IV, V
Vascular tumors									
<i>Angiofibroma</i>	Jindal R, <i>et al.</i> 2021 ²²	<ul style="list-style-type: none"> • Yellow-white dots (100.0%) • Brown to reddish-brown background (100.0%) • Unfocused vessels (100.0%) • Unevenly distributed specks/dots of brown pigmentation (100.0%) • Surface crypts (NS) 	<ul style="list-style-type: none"> • Dots, yellow-white • Structureless, brown, red-brown • NA • Dots, brown • Lines, curved and thick, in combination with clods 	<ul style="list-style-type: none"> • Follicular hyperkeratosis • Increased number of dermal vessels + melanocytic hyperplasia • Dermal vessels • Dermal melanophages • Pseudo-follicular openings 	Polarized/x10	4 (facial)	CS	V	NS ("Skin of color")
	Ankad BS, <i>et al.</i> 2017 ¹⁵	<p>Facial</p> <ul style="list-style-type: none"> • Bluish white lacunae (NS) • Red dots (NS) • White globules (NS) <p>Penile</p> <ul style="list-style-type: none"> • White globules <ul style="list-style-type: none"> • Whitish red or pinkish background 	<ul style="list-style-type: none"> • Clods, blue-white • Vessels, dots • White clods, small, round or oval • White clods, small, round or oval • Structureless zone, pink/red 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS 	Polarized-nonpolarized/NS	4 (facial and penile)	CS	V	NS ("Brown skin")
	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Yellowish-white dots (100.0%) • Pinkish-gray background (100.0%) 	<ul style="list-style-type: none"> • Dots, yellow-white • NA 	<ul style="list-style-type: none"> • Follicular hyperkeratosis + sebum • Vessels + pigmentary incontinence 	Nonpolarized/x10	1 (facial)	CR	V	IV

<i>Angiokeratoma</i>	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> • Crypts over the surface (NS) • Pink to purplish lagoons (100.0%) • Whitish ground glass film (100.0%) • Thick septae separating each lacuna (100.0%) 	<ul style="list-style-type: none"> • Lines, curved and thick, in combination with clods • Clods, red-purple • NA • Lines, white 	<ul style="list-style-type: none"> • Pseudofollicular openings • NS • NS • NS 	1	CR	V	NS ("Brown skin")
<i>Cherry angioma</i>	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> • Red to purplish round to oval lagoons (100.0%) • Milky-white veil in older lesions (NS) • A rim of pigment network (20.0%) 	<ul style="list-style-type: none"> • Clods, red or purple • NA • Lines, reticular (peripheral), brown 	<ul style="list-style-type: none"> • NS • NS • NS 	10	CS	V	NS ("Brown skin")
<i>Infantile hemangioma</i>	Kusari A, <i>et al.</i> 2021 ²³	<ul style="list-style-type: none"> • Red lacunae (100.0%) • White septa (100.0%) 	<ul style="list-style-type: none"> • Clods, red or purple • Lines, white 	<ul style="list-style-type: none"> • NS • NS 	1	CR	V	NS (Literature from South Sudan)
<i>Lymphangioma circumscriptum</i>	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> • Pale pink lacunae (NS) • Pale yellow lacunae (NS) • Purplish globules (NS) • White areas (NS) 	<ul style="list-style-type: none"> • Clods, red or purple • Clods, yellow • Clods, red or purple • Structureless zone, white 	<ul style="list-style-type: none"> • NS • NS • Blood • Hyperkeratosis 	3	CS	V	NS ("Brown skin")
<i>Pyogenic granuloma</i>	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> • Reddish homogeneous areas (NS) • White collarette (NS) • White rail line (NS) • Vascular structures (NS) 	<ul style="list-style-type: none"> • Structureless zone, red • NA • Lines, white • Vessels 	<ul style="list-style-type: none"> • Dilated vessels • NS • NS • Collagen bundles separating vascular lobules in the dermis 	39	CS	V	NS ("Brown skin")
Connective tissue tumors								

<i>Dermatofibroma</i>	Kelati A, <i>et al.</i> 2017 ²⁴	<ul style="list-style-type: none"> • Network (79.0%) (peripheral 45.8%; patchy 17.7%; total 15.5%) • White patches (70.0%) (central scar-like 40.0%; eccentric multiples 30.0%) • Homogeneous pigmentation (36.0%) (central 26.9%; eccentric 3.3%; peripheral 5.8%) • Homogenous pink color (21.1%) • Globule-like structures (18.0%) • White streaks (18.0%) • Peripheral rings (13.0%) (around an ulceration 5.5%; around the follicular openings 2.2%; simple ring 5.3%; brown 10.0%; white 3.0%) • Ulceration (6.0%) • Brown streaks (6.0%) • Ring-like structures (3.0%) • Comedo-like opening (3.0%) • Negative network-like appearance (3.0%) • Heterogeneous pigmentation (3.0%) • Milia-like cysts (2.0%) • Vascular structures (30.0%) (comma-like vessels 23.3%; dotted vessels 23.3%; linear 13.3%) 	<ul style="list-style-type: none"> • Lines, reticular (peripheral, multifocal, uniform) • Structureless zone, white (central, multifocal) • Structureless zone, brown (central, eccentric, peripheral) • NA • Clods, small, round or oval • Lines, white, perpendicularly • NA • Erosions/ulcerations • Lines, radial • NA • Clods, brown, yellow, or orange (rarely black) • Lines, reticular, hypopigmented, around brown clods • NA • Dots or clods, white, clustered or disseminated • Vessels (curved, dots, linear) 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS 	Polarized-nonpolarized/NS	100 lesions from 95 patients	CS	V	IV (94%), V (6%)
	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> • Central white scar like areas (NS) • Central yellow homogeneous areas (NS) • Delicate peripheral pigment network (NS) • Peripheral striations (NS) • Central, distorted pigment network (16.7%) 	<ul style="list-style-type: none"> • Structureless zone, white (central) • Structureless zone, yellow (central) • Lines, reticular and thin • Lines, radial (peripheral) • Lines, reticular and thick or reticular lines that vary in color 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS 	Polarized-nonpolarized/NS	6	CS	V	NS ("Brown skin")

	Giddens T, <i>et al.</i> 2022 ²⁵	<ul style="list-style-type: none"> Central, brown, homogeneous area (60.0%) Central hyperpigmented area with blue white color (20.0%) Peripheral reticulation (20.0%) Peripheral pigment network (60.0%) Uniformly distributed brown network (20.0%) Absent central white scar (100.0%) 	<ul style="list-style-type: none"> Structureless zone, brown (central) Structureless zone, blue- white (central) Lines, reticular and thin (peripheral) Lines, reticular and thin (peripheral) Lines, reticular and thin NA 	<ul style="list-style-type: none"> NS NS NS NS NS NS 	Polarized/NS	5 lesions from 3 patients	CS	V	V,VI	
	De Giorgi V, <i>et al.</i> 2006 ¹¹	<ul style="list-style-type: none"> White central patch (100.0%) Fine peripheral network (100.0%) 	<ul style="list-style-type: none"> Structureless zone, white (central) Lines, reticular and thin (peripheral) 	<ul style="list-style-type: none"> NS NS 	NS/NS	1	CR	V	NS ("Black people")	
	Piccolo V, <i>et al.</i> 2016 ²⁶	<ul style="list-style-type: none"> Atypical network (100.0%) Hyper- and hypopigmented structureless areas (100.0%) Shiny white streaks (100.0%) Unfocused linear-irregular vessels (100.0%) 	<ul style="list-style-type: none"> Lines, reticular and thick or reticular lines that vary in color NA Lines, white, perpendicularly Serpentine vessels 	<ul style="list-style-type: none"> NS NS 	NS/NS	1	CR	V	NS ("African man")	
	Escobar GF, <i>et al.</i> 2019 ²⁷	<ul style="list-style-type: none"> Pigmented network with interruptions (100.0%) Pinkish background (100.0%) 	<ul style="list-style-type: none"> NA NA 	<ul style="list-style-type: none"> NS NS 	NS/NS/20	1	CR	V	IV	
<i>Fibroketatoma</i>	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> Homogeneous brownish-white and rosy-white area (NS) Dotted vessels (NS) Linear vessels (NS) White structureless (tree branches-like arrangement) (NS) 	<ul style="list-style-type: none"> Structureless zone, white-brown, pink-white Vessels, dots Linear vessels Structureless zone, white 	<ul style="list-style-type: none"> NS NS NS Fibrous tissue in the dermis 	Polarized-nonpolarized/NS	5	CS	V	NS ("Brown skin")	
<i>Neurofibroma</i>	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> Pink-red homogeneous areas (NS) Peripheral pigment network (NS) Fissures (NS) Scar-like white areas with starburst appearance (NS) 	<ul style="list-style-type: none"> NA Lines, reticular (peripheral) NA Structureless zone, white 	<ul style="list-style-type: none"> NS NS NS NS 	Polarized-nonpolarized/NS	4	CS	V	NS ("Brown skin")	
Cystic neoplasms and others										

<i>Epidermal cyst</i>	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> • Yellow and black-colored pore (NS) • Branching vessels (NS) • Ivory white homogeneous area (NS) 	<ul style="list-style-type: none"> • NA • Branched vessels • Structureless zone, white 	<ul style="list-style-type: none"> • NS • NS • NS 	Polarized-nonpolarized/NS	7	CS	V	NS (“Brown skin”)
	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Yellow homogeneous area (25.0%) • Grey homogeneous area (25.0%) • Central punctum surrounded by grey homogeneous area (25.0%) • Skin-colored homogeneous area (25.0%) 	<ul style="list-style-type: none"> • Structureless, yellow • Structureless, gray • NA • Structureless zone, brown 	<ul style="list-style-type: none"> • NS • NS • NS • NS 	Nonpolarized/x10	4 lesions from 1 patient	CS	V	IV, V
<i>Milia</i>	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> • White to yellow homogeneous areas. (NS) • Brownish peripheral rim (NS) • Linear vessels (NS) 	<ul style="list-style-type: none"> • Structureless, white/yellow • NA • Linear vessels 	<ul style="list-style-type: none"> • NS • NS • NS 	Polarized-nonpolarized/NS	3	CS	V	NS (“Brown skin”)
	Behera B, <i>et al.</i> 2021 ²¹	<ul style="list-style-type: none"> • Skin-colored homogeneous area (40.0%) • White homogeneous area with arborizing vessels (20.0%) • Central scar-like or white homogeneous area with peripheral brown homogeneous area/fingerprint-like area (20.0%) 	<ul style="list-style-type: none"> • Structureless, brown • Structureless, white + branched vessels • Structureless zone, white (central or uniform) +/- structureless zone, brown/ lines, brown, curved, parallel, thin 	<ul style="list-style-type: none"> • NS • NS • NS 	Nonpolarized/x10	5	CS	V	IV, V
<i>Steatocytoma multiplex</i>	Ankad BS, <i>et al.</i> 2017 ¹⁵	<ul style="list-style-type: none"> • Central scar-like/white homogeneous area surrounded by fingerprint-like area (20.0%) • Peppering (20.0%) • Yellow homogeneous area covering entire lesion (NS) • Linear vessels (NS) • Peripheral brown rim (NS) 	<ul style="list-style-type: none"> • Structureless zone, white (central) +/- lines, brown, curved, parallel, thin • Dots, gray, blue or black • Structureless, yellow • Linear vessels • NA 	<ul style="list-style-type: none"> • NS • NS • NS • NS 	Polarized-nonpolarized/NS	1	CR	V	NS (“Brown skin”)

<i>Mycosis fungoides</i> (MF)	Nakamura M, <i>et al.</i> 2021 ²⁸	<p>Classic MF (N=4; 18 images)</p> <ul style="list-style-type: none"> • Dark brown to gray or black clods and dots forming pseudonetworks (NS) • Thick black lines (NS) • Erythematous to whitish pink, structureless zones (NS) • Prominent eccrine duct openings (NS) • White rosettes (NS) <p>• Geometric white lines (NS)</p> <p>Hypopigmented MF (N=4; 9 images)</p> <ul style="list-style-type: none"> • Patchy, amorphous, white-pink areas (NS) • Reduction or loss of natural pigment network (NS) <p>Folliculotropic MF (N=1; 4 images)</p> <ul style="list-style-type: none"> • Follicular plugging (NS) • Perifollicular scale (NS) • Hyperpigmented to violaceous perifollicular halos (NS) <p>Verrucous MF (N=2; 2 images)</p> <ul style="list-style-type: none"> • Large, multicolored amorphous structures (NS) • Yellow-gray ridges (NS) • Comedo-like openings (NS) 	<ul style="list-style-type: none"> • Clods/dots, brown-gray or black • Lines, reticular and thick • Structureless, red/white • NA • Dots, white, four arranged in a square • Lines, reticular, white • Structureless, white-pink • NA <ul style="list-style-type: none"> • Follicular plugs • NA • NA <ul style="list-style-type: none"> • NA • Lines, curved and thick, yellow-gray • Clods, brown, yellow, or orange (rarely black) 	<ul style="list-style-type: none"> • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS • NS 	NS/NS	11 (33 dermoscopic images)	CS	V	IV-VI
----------------------------------	--	--	---	--	-------	----------------------------	----	---	-------

NA: Not applicable; NS: Not specified; CR: Case report; CS: Case series; C-C: Case-control study