

boards fodder

Dermpath buzzwords

By Timothy Holland, DO, Catherine Brahe, MD, and Vikas Shrivastava, MD, FAAD



Timothy Holland, DO, is a PGY-4 dermatology resident at the Naval Medical Center San Diego.



Catherine Brahe, MD, FAAD, is a staff dermatologist at the Naval Medical Center Camp Lejeune.



Vikas Shrivastava, MD, FAAD, is a dermatologist and dermatopathologist, and the program director for the Naval Medical Center San Diego Dermatology Residency.

Buzzword	Description	Associated diagnosis(es)
"Ancient change"	Aged lesions of 'longer duration.' Often describes degenerative stromal changes. Classically described in schwannomas, now also applied to nevi mimicking melanoma	Ancient schwannomas and ancient nevi
"Apple green" birefringence	On congo red staining, color that appears on polarized light when looking at amyloid deposition	Amyloidosis
"Arabesque bodies"	Amorphous and eosinophilic substance lining pseudocysts. Arabesque: "rhythmic linear patterns of scrolling and interlacing foliage, tendrils"	Lipodermatosclerosis, membranous lipodystrophy
"Ball and claw"	Superficial dermal lymphocytes in the papillary dermis (the ball) which appears to be grasped by intoeing rete ridges (claw)	Lichen nitidus
"Bare underbelly sign"	No inflammation deep to superficial vessels of papillary dermis, lymphocytes present only on the epidermal side of the dermal-epidermal junction (DEJ)	Mycosis fungoides
"Beanbag cells"	Cytophagocytosis with large histiocytes with multiple cellular components. Looks like a large stuffed beanbag	Subcutaneous panniculitis like T-cell lymphoma
"Blue islands in sea of mucin"	Basaloid aggregates of cells surrounded by clear spaces representing mucin. Appears like small 'islands' surrounded by mucin	Mucinous carcinoma
"Bramble bush"	AKA purple squiggles: Calcified elastic fibers in the dermis. Appears similar to small bushes with interweaving branches or tumbleweed	Pseudoxanthoma elasticum, (especially penicillamine induced)
"Buckshot scatter"	Random spread scattering of atypical cells; appearance is likened to a shotgun firing a buckshot with tiny beads spread haphazardly throughout the epidermis	Extramammary Paget's disease, melanoma, sebaceous carcinoma, squamous cell carcinoma in situ (SCCIS)
"Cannonball pattern"	Tightly packed lobules of capillaries, looks like tiny cannonballs (cannonballs referring to the round, dilated 'empty' vascular spaces)	Tufted angioma, stasis dermatitis
"Caterpillar bodies"	Pink basement membrane zone material hanging onto the roof of a blister	Porphyria cutanea tarda
"Checkerboarding"	Alternating orthokeratosis and parakeratosis both vertically and horizontally giving the appearance of a checkerboard	Pityriasis rubra pilaris

Dermpath buzzwords

By Timothy Holland, DO, Catherine Brahe, MD, and Vikas Shrivastava, MD, FAAD

Buzzword	Description	Associated diagnosis(es)
"Chicken wire vessels"	Characteristic vessels that appear like a mesh netting	Round cell liposarcoma, myxoid liposarcoma, metastatic renal cell carcinoma
"Chicken wire"	Pattern of staining on direct immunofluorescence within the epidermis; creates a chain-link fence appearance	Pemphigus vulgaris
"Church spires"	Papillomatosis and hyperkeratosis in tall spires which are likened to church spires (tall, slender, pointed structures on roofs)	Human papillomavirus (HPV) cutaneous infections, hyperkeratotic seborrheic keratosis, acrokeratosis verruciformis of hopf
"Cigar-shaped nuclei"	Long, cylindrical nuclei with blunt ends, shaped like a cigar	Pilar leiomyoma, normal smooth muscle
"Cling on cells"	Single keratinocytes hanging onto roof of blister	Pemphigus foliaceus
"Coat sleeve"	Densely packed lymphocytes and histiocytes around superficial blood vessels, appear like a cross-section of a coat sleeve	Erythema annulare centrifugum, other gyrate erythemas, syphilis
"Copper pennies"	Round, brown, pigmented organisms clustered together that look like a stack of copper pennies. AKA medlar bodies	Chromoblastomycosis
"Cow udder"	Pendulous lobules of keratinocytes with clear cell change, coming off of the epidermis	Trichilemmoma (associated with Cowden's disease)
"Cup-shaped"	Focal central depression of acantholysis and dyskeratosis. Silhouette of the lesion is in the shape of a cup	Warty dyskeratoma
"Dead red"	Necrotic keratinocytes within epidermis. Appear brightly eosinophilic (red) within the epidermis. AKA "civatte bodies"	Graft-versus-host disease, erythema multiforme, Still's disease, lichen planus, many others
"Dilapidated brick wall"	Diffuse acantholysis of keratinocytes in the epidermis whereby the keratinocytes are 'bricks' and are making up a wall which appears to be falling apart	Hailey-Hailey disease
"Dirty infiltrate"	Numerous eosinophils and neutrophils admixed with large lymphocytes. The contrast appears mixed, or 'dirty'	Lymphomatoid papulosis
"Dirty socks"	Sock shaped projections of rete ridges with hyperpigmentation towards the base giving a 'dirty' appearance. AKA 'chocolate dipped'.	Solar lentigo
"Dumbbell configuration"	Pattern of melanocytic proliferation similar in shape to a vertically oriented dumbbell where the melanocytic proliferation has superficial and deep bulges within the nevus	Cellular blue nevus

Dermpath buzzwords

By Timothy Holland, DO, Catherine Brahe, MD, and Vikas Shrivastava, MD, FAAD

Buzzword	Description	Associated diagnosis(es)
"East-West collagen"	Horizontally arranged collagen. When looking at a slide where the epidermis is oriented toward the top of the field of view (north). These collagen fibers are oriented left to right, or east to west	Scar
"Festooning"	Multiple dermal papilla projecting into bulla in a regular pattern	Porphyria cutanea tarda
"Flame figure"	Looks like flames (such as from a flamethrower or campfire). Made up of degranulated eosinophilic material on collagen	Wells syndrome, other disorders with robust eosinophilic infiltrate
"Floret like cells"	Giant cells with peripherally placed, overlapping nuclei which appear similar to rose petals	Spindle cell lipoma, pleomorphic lipoma
"Fried egg cells"	Cells with central dark nucleus (egg yolk) surrounded by eosinophilic cytoplasm (egg whites)	Mast cells
"Frost on a window pane"	Fat necrosis with lacy like eosinophilic strands appearing to spread into adipocytes. AKA arabesque bodies	Lipodermatosclerosis
"Ghost cells"	Cells without a nucleus	Pancreatic panniculitis, pilomatricoma
"Glycogen snacks"	Paranuclear vacuoles in smooth muscle cell nuclei. Referred to as 'snacks' as they are composed of glycogen	Smooth muscle cells
"Hairy palm sign"	Acanthosis of the epidermis + hyperkeratosis which appears like an acral surface but with hair follicles	Lichen simplex chronicus
"Halo appearance"	Clear appearing space surrounding organism, consistent with a thick capsule	Cryptococcosis
"Hanging bananas"	Vertically oriented nests of melanocytes looking like bananas hanging from a tree. Not to be confused with banana bodies (as seen in ochronosis)	Spitz nevus
"Herringbone"	Fascicles of cells connecting at acute angles, architecture looks like fish skeleton, or herringbone	Fibrosarcoma, dermatofibrosarcoma protuberans (DFSP) with fibrosarcomatous change
"Hobnailing"	Protrusion of elongated endothelial cells into lumen of vessels, appear like hobnails which are large-headed screws attached to shoe soles	Targetoid hemosiderotic hemangioma, retiform hemangioendothelioma
"Honeycombing"	Invasion of fat by fibrohistiocytes. This fat entrapment appears like a honeycomb, whereby the adipocytes are surrounded by the 'honeycomb walls' of fibrohistiocytes	DFSP
"Jigsaw puzzle"	Islands of tumor cells closely 'fitting' together which fit together like puzzle pieces. Also referred to as a 'giraffe' pattern	Cylindroma
"Layered cake"	Horizontal arrangement of alternating inflammation and dermal sclerosis. Appears like a cut piece of layered cake	Necrobiosis lipoidica

Dermpath buzzwords

By Timothy Holland, DO, Catherine Brahe, MD, and Vikas Shrivastava, MD, FAAD

Buzzword	Description	Associated diagnosis(es)
"Lymphocytes peppered in tumor"	Intratumoral lymphocytes scattered around larger pale staining cells	Spiradenoma
"Mariner's wheel"	Large round yeast forms with peripherally located smaller buds. Looks like pirate/captain wheel of a ship	Paracoccidioidomycosis
"Marquee sign"	Small organisms surrounding the periphery of a histiocyte, appears similar to light fixtures surrounding large signs outside of old-timey movie theater	Leishmaniasis
"Maze-like"	Clear spaces throughout invaginating papillary projections, appears like a two-dimensional maze	Hidradenoma papilliferum
"Mingling" lymphocytes	Lymphocytes admixed with melanocytes. Cells appear to be 'getting along' in this benign process	Halo (Sutton) nevus
"Monotonous"	Multiple diffuse cells within a tumor that are very similar/identical to one another (in terms of shape and size)	Poroma, glomus tumor
"Mulberry cells"	Large adipocytes with multi-vacuolization, looks like mulberries	Hibernoma
"Naked granulomas"	Foci of granulomatous inflammation without surrounding lymphocytes	Sarcoidosis
"Onion skin fibrosis"	Concentric fibrosis around dermal vessels, appearance looks like onion rings (or an onion cut in half)	Erythema elevatum diutinum, lepromatous leprosy, granuloma faciale
"Owl's eye"	Intranuclear inclusions of infected endothelial cells. These large inclusions appear as the pupil to the overall cell shape of an Owl's eye	Cytomegalovirus infection
"Paisley tie"	A specific pattern of teardrop-shaped collections of cells. Appearance closely resembles the paisley pattern often found on neck ties	Diff Dx: adnexal neoplasms: microcystic adnexal carcinomas, desmoplastic trichoepitheliomas, morpheaform basal cell carcinoma, syringomas.
"Papillitis"	Neutrophils prominently found in the tips of dermal papillae, appears as focal acute inflammation	Dermatitis herpetiformis
"Periwinkle blue"	A light blue lavender color associated with large pale keratinocytes from viral changes associated with HPV types 3, 5, and 8	Epidermodysplasia verruciformis
"Piled-on"	Many malignant endothelial cells crowded in sheets on top of each other	Angiosarcoma
"Pink tongue"	Pink verrucous epidermal projections with bulbous ends projecting down into the dermis	Verruciform xanthoma
"Plywood pattern"	Characteristic intersecting clefts between collagen fibers, appears like woodgrain from plywood	Sclerotic fibroma

Dermpath buzzwords

By Timothy Holland, DO, Catherine Brahe, MD, and Vikas Shrivastava, MD, FAAD

Buzzword	Description	Associated diagnosis(es)
"Red, white, and blue"	These are the 'colors' seen on H&E sections: red (orthokeratosis in stratum corneum), white (pale papillary dermis), and blue (band like infiltrate of lymphocytes)	Lichen sclerosis
"Rimming of adipocytes"	Atypical lymphocytes circumferentially surrounding an adipocyte. They characteristically surround the 'rim' of the adipocyte	Subacute panniculitis like T-cell lymphoma
"Riot police" lymphocytes	Lymphocytes form a lichenoid band around atypical melanocytes, no intermingling (appears like a clash between rioters and police)	Melanoma
"Rolls and scrolls"	Complex cystic proliferation of concentric bands of cells – like a papyrus scroll or cinnamon roll	Proliferating pilar cyst, pilomatricoma
"Satellite cell necrosis"	Lymphocytes immediately adjacent to necrotic keratinocytes	Graft-versus-host disease
"Sawtooth"	Sharp and short downward projections of the rete ridges with appearance of teeth on a saw	Lichen planus
"Setting sun sign, magenta"	Magenta color of dermal glycosaminoglycans seen on toluidine blue staining.	Glycosaminoglycans, especially in basal cell carcinoma
"Sexy rete ridges"	Long slender rete ridges compared with shorter wider rete, which invokes images of a disease transmitted sexually	Syphilis
"Shadow cells"	Often referred to as ghost cells (cells without a nucleus)	Pilomatricoma
"Shark tooth"	Corrugated bright pink stratified squamous epithelium in cyst wall. The cells are lined up like a row of shark's teeth	Steatocystoma
"Shoulder parakeratosis"	Parakeratosis around the opening of a hair follicle. The two sides of the hair follicle openings are referred to as the shoulders	Pityriasis rubra pilaris, seborrheic dermatitis
"Shouldering"	Junctional melanocytes in a nevus extend laterally 3 or more rete ridges past the primary dermal component	Atypical melanocytic nevus
"Shredded wheat"	Loosely stacked lamellated (lamellated meaning thin layers or plates) keratin – looks like the surface of shredded wheat breakfast cereal	Seborrheic keratosis
"Sieve-like vessels"	Blood vessels in a fine meshwork, similar in appearance to a sieve	Kaposi sarcoma
"Single filing"	Single layer of cells lined up in between bundles of collagen	Cutaneous metastases, (especially metastatic breast cancer)
"Slammed"	Malignant dermal spindle cell tumors with cells that appear to erupt or 'slam' up into the epidermis	Spindle cell squamous cell carcinoma, leiomyosarcoma, atypical fibroxanthoma, melanoma
"Slate gray" nuclei	Gray-colored nuclei, usually associated with multinucleation	HSV

Dermpath buzzwords

By Timothy Holland, DO, Catherine Brahe, MD, and Vikas Shrivastava, MD, FAAD

Buzzword	Description	Associated diagnosis(es)
"Snouting"	Apocrine decapitation secretion – bulbous protrusions into lumens.	Apocrine cystadenoma
"Soccer ball organisms"	Large organism with numerous septations with appearance similar to a soccer ball	Protothecosis (morula)
"Spaghetti and meatballs"	Hyphal and spore elements seen on KOH preparation - The long branching hyphae are the 'spaghetti' and the spores are 'meatballs'	Tinea versicolor
"Square biopsy sign"	Shape of a punch biopsy at low power. Normally punch biopsies are tapered toward the dermis/subcutis; here they are rectangular or square shaped	Morphea, cutaneous mucinosis, necrobiosis lipoidica. May also be a benign variant from a punch biopsy of the back
"Steel gray"	Gray color of keratinocytes found in herpes simplex viral infections and varicella zoster viral infections	Herpes simplex and varicella zoster virus
"String sign"	Flat base of lesion where you could easily draw a straight line or 'lie a string across'	Seborrheic keratosis
"Swarm of bees"	Dense lymphocytic infiltrate surrounding a hair bulb, whereby the lymphocytes are the 'bees' swarming the hair bulb	Alopecia areata
"Swiss cheese"	Holes throughout the dermis, or cribriform nodules or basaloid cells	Silicone granuloma, paraffinoma, trichoepithelioma
"Tadpole"	See paisley tie above	See paisley tie above
"Tissue culture"	Loose fascicular and storiform pattern of plump spindle cells with clear spaces and frequent mitoses. Appears like mammalian cells grown in a lab (tissue culture)	Nodular fasciitis
"Tombstoning"	Lined up basilar keratinocytes with the shape of tombstones which lines the floor of a blister, representing a suprabasilar split	Pemphigus vulgaris
"Waxy pink"	Hyalinized fat necrosis	Lupus panniculitis
"Windblown"	Full thickness keratinocyte atypia which appears disorganized. Imagine a gust of wind blowing cells out of order and in the wrong places	SCCIS/Bowen's disease

References:

- Ackerman LV, Taylor FH. Neurogenous tumors within the thorax. A clinicopathological evaluation of forty-eight cases. *Cancer*. 1951;4(4):669-691.
- Alikhan A, Hocker TLH, eds. *Review of Dermatology*. Second edition. Elsevier; 2024.
- Bolognia JL, ed. *Dermatology: ExpertConsult*. 4th edition. Elsevier; 2012.
- Elston DM, Ferringer T, eds. *Dermatopathology*. Third edition. Elsevier; 2019.
- Madke B, Doshi B, Khopkar U, Dongre A. Appearances in dermatopathology: the diagnostic and the deceptive. *Indian J Dermatol Venereol Leprol*. 2013;79(3):338-348.
- Patterson JW, Weedon D. *Weedon's Skin Pathology*. Fifth edition. Elsevier; 2021.
- Rapini R. *Practical Dermatopathology*. Third. Elsevier, Inc; 2021.

The views expressed in this chart are those of the authors and do not necessarily reflect the official policy of the Department of Defense, Department of the Air Force, Department of the Navy, Defense Health Agency, or the US Government.