



Dermatopathology: An abridged compendium of words. A discussion of them and opinions about them. Part 4

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The compendium (Part 4)

– D –

DARK CELLS: of eccrine glands are secretory and characterized ultrastructurally by numerous vacuoles that contain mucin. The name “dark” comes from the electron-dense appearance of the cells in contrast to the electron-lucid character of light cells of eccrine glands. The terms dark cell and light cells (also known as clear and pale cells) are used also to contrast two populations of cells within a particular neoplasm, i.e., spiradenoma, wrongly designated “eccrine spiradenoma” because differentiation of that neoplasm is apocrine. In most instances, a dark appearance results from scant cytoplasm, which causes nuclei to appear crowded, as much as from dense nuclear chromatin. Light cells have abundant glycogen in their cytoplasm. At scanning magnification lymphocytes appear dark in color even “black.” This is helpful in diagnosis.

DECAPITATION SECRETION: describes apical portions of cytoplasm of secretory cells that project prominently as buds into a lumen. The buds often contain eosinophilic granules. The neck of a bud becomes progressively thinner and eventually is lost into the lumen, giving the impression of having been “pinched off” or decapitated. In the realm of hamartomas and neoplasms, the finding of definitive “decapitation secretion” is specific for apocrine differentiation. The terms apocrine secretion, “decapitation” secretion, “pinching-off” secretion, and snouts are synonyms.

DEGENERATION: in classic pathology, particular alterations detectable microscopically either in cells or in extracellular tissue, i.e., hydropic degeneration of cells and degeneration of collagen. The term is applied incorrectly to “liquefaction degeneration” of the basal layer, those changes consisting only of vacuoles situated immediately above and below the basement membrane, and to “mucinous degeneration” of a neural neoplasm where “degeneration” is employed as a synonym for deposits of mucin. “Fatty degeneration” of neutrophils has been reputed to be responsible for the yellow color of pus, a claim that probably is without merit. Elastotic material that results from longstanding injury to skin by the effects of ultraviolet light is not a degeneration of collagen, as it is purported to be, but rather a faulty product of fibrocytes.

Degeneration of cells designates injury that may not necessarily be fatal; that is, the cells are not yet dead and, therefore, are able to recover fully, as in examples of ballooning degeneration early in its course, i.e., before spinous cells have swollen dramatically and before reticular alteration has come into being. Once, however, either of those two latter changes has eventuated as a consequence of ballooning severely, necrosis of keratocytes is inevitable and invariable.

DEGENERATION OF COLLAGEN: loss of the normal structure of collagen bundles as a result of anoxemia or of the action of lysosomal enzymes from leukocytes; seen as granular basophilic change in tissue sections stained by hematoxylin and eosin and should not be referred to as necrosis of collagen, because collagen is a fiber and not a cell.

In addition, degeneration of collagen refers to structural and tinctorial alterations in bundles as a consequence of injury to them. In sections stained by hematoxylin and eosin, such degeneration is recognized by loss of outlines of bundles, i.e., they appear to have a smudged appearance, and by change in quality of staining, i.e., the usual red hue becomes blue. These changes in collagen are seen in conditions as unlike as necrobiosis lipoidica, necrobiotic xanthogranuloma, and severe burns of any cause, and as a consequence of the effects of neutrophils, in large number, on collagen, as occurs in "Churg-Strauss granulomas," and on elastic fibers in elastosis perforans serpiginosa, and of numerous eosinophils on collagen, as happens in "flame figures." The term degeneration, rather than necrosis, is proper for these changes because necrosis is possible only for cells that are viable; fibrocytes, i.e., viable cells, can undergo necrosis, but collagen, i.e., fibrous tissue, cannot.

DENDRITIC MELANOCYTE: a melanocyte that is as thin as a reed and nearly always heavily pigmented.

DEPOSIT: a significant quantity of a substance in an organ where that is not a normal occurrence such as a quantity of mucin, amyloid, or urate in the skin.

DERMAL PAPILLAE: comprise the uppermost portion of the dermis situated between epidermal rete ridges in sections oriented vertically and characterized, when viewed in three dimensions, by the appearance of nipple-like projections of connective tissue into hollows of the undersurface of the epidermis. Dermal papillae constitute most of the papillary dermis, i.e., the relatively thin superficial part of the dermis that is continuous with the much thicker reticular dermis. Bundles of collagen and fibers of elastic tissue are more delicate in the papillary dermis than they are in the reticular dermis. The papillary dermis also is more richly vascularized by capillaries and contains more mucin than does the reticular dermis. A dermal papilla should not be confused with a follicular papilla, to wit, the spade-shaped, mucin rich, capillary-invested connective tissue structure that invaginates the bulb of a follicle in full-fledged anagen and has different appearances at other phases of the follicular cycle.

DERMATITIS: inflammatory disease in which the infiltrate of inflammatory cells is present in the dermis, a definition that is applied scrupulously throughout this work, in contrast to the way the term "dermatitis" is used in virtually every text of dermatology and dermatopathology, namely, as a synonym for "eczema," a term that we employ only for purposes of decrying it.

DERMATOSCOPY (not dermoscopy): is a special procedure that may help define whether a skin lesion is benign or malignant clinically. It has other related uses. The procedure uses a dermatoscope

There are no "true" words "dermoscopy" and "dermoscope;" the words correct are "dermatoscopy" and "dermatoscopic." And that is precisely why disciplines are named dermatology, not dermology, and dermatopathology, not dermopathology.

The entry for dermat-, dermato- in *A Dictionary of Dermatological Words, Terms, and Phrases* by Leider and Rosenblum (Dome laboratories, West Haven, Conn. 1976 revised edition) reads as follows: combining forms from the stem of the Greek word, derma; skin, dermatos; of the skin." Not surprisingly, there is no entry in that dictionary for dermo- because no such stem exists. It is not too late to banish dermoscopy and dermoscopic in favor of dermatoscopy and dermatoscopic.

DERMATOSIS: refers to any condition of the skin, by implication an abnormal one, among those being inflammation, i.e., dermatitis. Confusingly, some authors use "dermatosis," in contradistinction to "dermatitis," for skin conditions that are not characterized by inflammation clinically. In our judgment, the term "dermatitis" or "inflammatory disease of the skin" is preferable to "inflammatory dermatosis" because it is more direct, "dermatosis" being generic, not specific, and employed for diseases other than inflammatory ones.

DERMIS: refers to the connective tissue of the skin that is situated between the epidermis and the subcutaneous fat (which is really not part of the skin [the skin being the epidermis and the dermis]). It is divided roughly into two components: A thin adventitial dermis composed of a superficial papillary dermis and a continuous periadnexal dermis, and a thick reticular dermis. Both the adventitial dermis and the reticular dermis are composed of cells (fibrocytes, dendrocytes, and mast cells), bundles (collagen), fibers (elastic), and ground substance (mucin). Within the dermis reside epithelial (folliculosebaceous-apocrine and eccrine) and nonepithelial (blood vessels, nerves, and smooth muscles) structures of adnexa.

DERMOEPITHELIAL INTERFACE: the junction between dermis and epithelial structures contiguous with it, i.e., epidermis (surface and infundibular) and adnexal (folliculosebaceous apocrine and eccrine). What transpires at the interface between dermis and epidermis especially is important for diagnosis by conventional microscopy of those inflammatory diseases of the skin designated "interface dermatitides." The interface also is important in other highly circumscribed circumstances, such as a perceptibly thickened basement membrane there, an evidence of either discoid lupus erythematosus or dermatomyositis. The thickened basement membrane is denoted as "smudged" by some dermatopathologists.

DESMOPLASIA: refers to fibroplasia that develops in response to certain proliferations. Desmoplastic melanoma is truly desmoplastic because a proliferation of fibrocytes, which produce fibrous tissue, accompanies the proliferation

malignant of melanocytes. In contrast, desmoplastic trichoepithelioma is not truly desmoplastic because the number of fibrocytes in the stroma is not increased notably and fibrosis is not discernable readily.

DIFFERENTIATION: denotes a change whereby things become unlike in structure, function, and specialization and, in biology, the process by which, in the course of development, cells become modified into a form specific, structurally and functionally. For example, differentiation occurs in an embryo as germinative cells at loci of surface ectoderm evolve into apocrine-sebaceous-follicular units, each component of which having distinctive attributes morphologic, and differentiation occurs in proliferations postnatal as cells of them attempt to recapitulate events in life embryonic by forming elements of them, as in trichoblastoma where follicular germs often are contiguous with a follicular papilla, sebaceoma in which sebocytes at one or more stages various of maturation and structures akin to sebaceous ducts are nearly invariable, and papillary apocrine adenoma in which cells that line lumina sport signs of “decapitation secretion.” When structures that seem to be normal are evident, a proliferation is judged to be well differentiated; when there are only hints vague of structures normal, a proliferation is regarded as poorly differentiated; when no sign of a structure normal is apparent, a proliferation is considered to be undifferentiated.

Maturation is a kind of differentiation, namely, that specific of cells as they age, i.e., a basal keratocyte of the epidermis into a corneocyte and an immature sebocyte at the periphery of a lobule into a mature one in the center of it. (SEE MATURATION)

DIGITATED: refers to the shape of a type of epidermal proliferation that expresses itself as finger-like projections above the skin surface, as may be seen in verruca vulgaris or solar keratosis. Mammillated differs from digitated by having rounded, rather than pointed, protuberances.

DOPA: is an acronym for dihydroxyphenylalanine, which is oxidized by dopaoxidase in a positive dopa reaction, i.e., one in which melanogenesis occurs.

DUCT: is a discrete structure tubular lined by epithelial cells and specialized for transport of substances secretory or excretory. Most ducts, such as dermal ones of eccrine units, serve purposes other than mere transport, such as exchange of substances, mostly of electrolytes, and concentration of secretions or excretions. The ducts of apocrine and eccrine glands are indistinguishable from one another morphologically, but sebaceous ducts possess a surface crenulated that stamps them incontestably for what they are.

DULL PINK GLOBULES (KAMINO BODIES): globules that are stained very light red by hematoxylin and eosin, bright

red by periodic acid Schiff (and resistant to diastase), and blue with Masson’s trichrome, and present in the epidermis of about 50% of all junctional and compound examples of “classic” Spitz’s nevi. They are found in other kinds of nevi, such as Reed’s, and, uncommonly, in Clark’s. They do occur in melanoma. The number of them varies greatly in “classic” Spitz’s nevus, from but a single globule too many globules disposed as solitary units and in clusters. When present in other kinds of nevi and in melanomas, they tend to be few. The globules in “classic” Spitz’s nevi, and presumably in melanomas, consist of material that composes basement membrane, namely, laminin and type IV collagen. In short, the finding of these globules almost always signifies “classic” Spitz’s nevus or “Reed’s nevus,” but they are not a signs unequivocal of them.

DUSTY MELANIN: fine granules of melanin of uniform size usually evenly dispersed throughout the cytoplasm of melanocytes or keratocytes.

DYSKERATOSIS: cornification abnormally of individual keratocytes within the epidermis and epithelial structures of adnexa.

Dyskeratotic cells have pyknotic nuclei and eosinophilic cytoplasm, the latter, as visualized by electron microscopy, being jammed with filaments of keratin in perinuclear aggregation. Those prematurely cornified cells are encountered in inflammatory diseases, such as Grover’s disease and the verrucous stage of incontinentia pigmenti, in neoplastic diseases, such as Bowen’s disease and the squamous cell carcinoma called subungual keratoacanthoma; in Darier’s disease; acantholytic dyskeratosis acanthoma, and in cystic conditions such as warty dyskeratoma. In all instances, dyskeratosis is an expression of unexpectedly early, but slow, death of keratocytes. In contrast, those keratocytes that die rapidly have no time to cornify, a fact made manifest by the presence of a normal basket-weave configuration of the stratum corneum met with above necrotic cells, mostly spinous ones, in conditions such as erythema multiforme and fixed drug eruption, and in processes in which necrosis occurs even more suddenly and diffusely, such as burns of all kinds. Because keratocytes that die slowly undergo cornification, rather than become necrotic, the stratum corneum above them bears testimony to that in the form of either parakeratosis or compactly organized orthokeratosis, as occurs in the squamous cell carcinoma of the Bowen’s type and lichen planus, respectively.

DYSKERATOTIC CELL: a cell that cornified prematurely or abnormally with a pyknotic nucleus and brightly eosinophilic cytoplasm, as in Darier’s disease, warty dyskeratoma, and squamous-cell carcinoma in situ.

DYSPLASIA: in classic Virchowian pathology, an abnormality that results from an aberration in the embryological anlage.

In the past four decades, general pathologists have perverted the definition original of dysplasia and in its place have introduced a bevy of new definitions for it, those being as disparate as “cytologic atypia,” “atypical hyperplasia,” “abnormal growth,” “aberrant differentiation,” and “architectural and cytologic atypia.” Because no single definition, intelligible and repeatable, exists for dysplasia, use of that term serves only to impede communication between and among pathologists, to say nothing of discourse rational between pathologists and clinicians. For that reason, the term “dysplasia” should be avoided scrupulously.

DYSPLASTIC NEVUS: As it is “pictured” it is the most common of all nevi, it being characterized clinically by variability in size (from a few millimeters to more than a centimeter) and in hue, it usually being tan and flat at the periphery and darker brown and only slightly elevated in the center, but sometimes displaying more than two shades of brown. When compound, it is typified histopathologically by having the silhouette of a benign neoplasm (i.e., symmetrical, well circumscribed, etc.), being only slightly elevated, if at all, and displaying small nests of melanocytes at the dermoepidermal junction and, in the very center of the lesion, a few nests small in the papillary dermis, the nuclei of those melanocytes being small, oval, and monomorphic. The concept of dysplastic nevus is predicated on the notion of melanocytic dysplasia, a term that has yet to be defined in a crisp, comprehensible, repeatable way. We eschew the term “dysplasia” and “dysplastic nevus,” the former because it is unnecessary in general and for diagnosis with specificity in particular, and the latter because we name nevi eponymically, in the case of so called dysplastic nevus for Clark, of so-called juvenile melanoma for Spitz, and of so-called pigmented spindle-cell tumor for Reed. Last, dysplastic nevi were said, over and over again, by Clark and acolytes to be a “precursor” of melanoma and a “marker” for persons at risk for melanoma. They are neither. Less than 10% of all melanomas in the world, i.e., in persons of all races, develop in association with a preexisting nevus of any kind, and then the most common nevus, by far, is a congenital one that affects markedly the thickened papillary dermis (superficial) or the upper part of the reticular dermis (superficial and “deep”), not an acquired “dysplastic” one. Moreover, no relationship has been proven between the presence of so-called dysplastic nevi and risk for developing melanoma. It is true that episodically a melanoma may develop in continuity with a Clark’s nevus, just as it may in association with any kind of melanocytic nevus.

DYSPLASTIC NEVUS SYNDROME: a misconception based on misperceptions, namely, of “melanocytic dysplasia” and “dysplastic nevus.” The so-called syndrome consists of a single element, to wit, dysplastic nevi, and, therefore, does not fulfill criteria for a syndrome, which is a constellation of signs

and symptoms that constitute a disorder. Furthermore, no agreement exists about how many of those nevi are requisite for diagnosis of the “syndrome,” some authors insisting that “only a single nevus” is sufficient, whereas others contend that more than 100 of them are necessary.

– E –

ECCHYMOSIS: a broad, flat purpuric lesion that results from bleeding into the upper part of the dermis.

ECCRINE: designates a type of secretion or a gland responsible for that secretion in which the cells remain intact during the manufacture and release of the resulting chemical substance, the mechanism of secretion being called merocrine. Eccrine glands are situated normally everywhere on the integument, but they are especially numerous on palms and soles, sites where apocrine glands and hair follicles are absent.

ECTODERM: all constituents of human skin are derived from either ectoderm or mesoderm. The epithelial structures, i.e., epidermis (surface and infundibular), apocrine units, sebaceous units, hair follicles, eccrine units, and nail units, come from ectoderm. Melanocytes, nerves, and specialized sensory receptors develop from neuroectoderm. The other elements of skin, i.e., Langerhans’ cells, macrophages, mast cells, fibrocytes, blood vessels, lymph vessels, muscles, and adipocytes originate from mesoderm.

ECZEMA: a nonspecific term for various unrelated inflammatory diseases, one that has not been defined in a repeatable way after nearly 150 years of usage. Some sense for the frustration a student of inflammatory skin diseases must feel in regard to comprehending the meaning of the term can be gleaned from the definition offered by Hebra, the great Austrian dermatologist of the 19th century, namely, “eczema is that which looks like eczema,” a profundity that continues to be mouthed smugly in some quarters to this day. The “eczemas” are said to include diseases as disparate as allergic contact dermatitis (and nummular dermatitis, dyshidrotic dermatitis, and “id” reactions), atopic dermatitis, lichen simplex chronicus, and seborrheic dermatitis. Perhaps the best attempt at lucid definition of eczema is a papular or papulovesicular disease characterized histopathologically by spongiosis. That definition, however, excludes a paragon of eczema in most classifications of it, i.e., lichen simplex chronicus (because that condition is devoid of spongiosis) and atopic eczema (which also is bereft of spongiosis). Some manifestations of atopic dermatitis may show spongiosis within an infundibulum and a superficial perivascular predominately lymphocytic infiltrate (spongiotic infundibulitis). It also includes pityriasis rosea, erythema annulare centrifugum, and miliaris rubra, to mention but three spongiotic dermatitides that no textbook of dermatology and no dermatologist consider to be among

the eczemas. In short, there is no need for dermatologists to continue to squander time and thought in an effort vainly to define eczema; in reality, it cannot be done and, furthermore, there is no need for the term at all. Each of the diseases reputed to be eczema can be diagnosed with specificity for what it is based on both clinical features and histopathologic findings, i.e., allergic contact dermatitis, nummular dermatitis, dyshidrotic dermatitis, “id” reaction, and seborrheic dermatitis. In short, the word eczema, like dysplasia, is an impediment to communication among physicians and should be jettisoned, along with variations on the theme of it such as eczematoid, eczema-like, eczematous, eczematous dermatitis, eczematization, eczematogenic, and eczematosis.

ELASTOPHAGOCYTOSIS: is the process by which a macrophage engulfs altered fragments of elastic or elastotic tissue.

ELASTOTIC MATERIAL: solar elastosis, i.e., the altered, basophilic, spaghetti-like connective tissue produced by fibrocytes that have been exposed for many years to the damaging effects of ultraviolet light.

EMBRYO: refers to an early or developing stage of any organism, in particular, the developing product of fertilization of an egg. In humans, embryo designates a developing organism from 1 week after conception to the time that a crown-rump length of 30 mm is attained by about 55 or 56 days after fertilization. During the embryonic period, formation of organs (organogenesis) is accomplished. The embryonic period is followed by fetal development, which continues until birth and during which development of specific tissues (histogenesis) and initiation of specific functions is achieved.

ENDOPHYTIC: growing inward, as from the surface of the skin, like a morpheaform basal-cell carcinoma.

EPIDERMAL HYPERPLASIA: an increased number of cells, especially spinous ones, in a thickened epidermis. We employ it as a synonym for acanthosis because the latter is a parochial term restricted in scope to cutaneous pathology. Because dermatopathology and general pathology are one pathology, one language should be used for both. Strictly speaking epidermal hyperplasia applies also to an increased number of cells in the cornified layer, but by convention that abnormality is termed hyperkeratosis. So, too, epidermal hyperplasia includes an increased number of granular cells, but, by custom, that phenomenon is designated hypergranulosis. For the aforementioned reasons, we use epidermal hyperplasia as a synonym for spinous cell hyperplasia of the epidermis.

EPIDERMAL NEVUS: hamartoma characterized by papillated or digitated proliferation of epidermal keratocytes and associated almost always with hyperkeratosis.

EPIDERMOLYTIC HYPERKERATOSIS: refers to a pattern within an epithelium, especially epidermis, characterized by

enlarged, markedly vacuolated keratocytes with feathery borders, within whose cytoplasm are numerous coarse keratohyaline granules and on occasion, trichohyalin granules. The boundaries between the keratocytes appear to be lysed. Visualization of the cells by electron microscopy reveals that there actually is no lysis: the cells are cohesive. All of these changes occur in association with marked orthokeratosis.

EPIDERMOPOIESIS: the making of epidermis; the process of maturation of epidermal basal cells into cornified cells.

EPIDERMOTROPIC: (SEE EPIDERMOTROPISM)

EPIDERMOTROPICALLY METASTATIC: traditionally used to describe metastases to skin that involve the epidermis as well as the upper part of the dermis. Neoplastic cells of a metastasis destined to become epidermotropic emerge from cutaneous vessels, usually in the upper part of the dermis, and migrate to epidermis and sometimes to epithelial structures of adnexa. The most common epidermotropic metastasis to skin is melanoma. These metastases are usually in the epidermis or the upper part of the dermis but may be in the epidermis alone. Porocarcinomas, carcinomas of the genital tract in women, and carcinomas of the gastrointestinal tract are sometimes metastatically epidermotropic. Sarcomas practically never metastasize to epidermis. It would be better not to use this term. (SEE EPIDERMOTROPISM for an explanation)

EPIDERMOTROPISM: a biological phenomenon that indicates growth or turning movement of a cell or a collection of cells toward the epidermis. In a strictly morphologic sense, it is not definable. Adj. epidermotropic. The following term is suggested instead: intraepidermal: being present within the epidermis.

The word epidermotropic is not defined in any of the main medical dictionaries, nor is it in textbooks of dermatology or dermatopathology. As for epidermotropism, it is only defined in a minority of dictionaries and in some textbooks. Strictly speaking, the suffix tropism implies a movement; the best example is the turning or bending phenomenon plants undergo in response to light as the environmental stimulus. This response is called phototropism. Literally, *epidermotropism* means a “turning towards the epidermis or having an affinity for the epidermis.”

When checking the words “epidermotropism” and “epidermotropic” in dictionaries, textbooks, and journals, it is hard to find them unassociated with mycosis fungoides. In the rest of the cases, those words are used almost exclusively for other lymphomas, especially the T-cell lymphomas. It is difficult to find other diseases with “epidermotropic” alterations, but when that happens, interestingly they are almost always malignant processes, i.e., carcinomas such as Paget’s disease

or porocarcinomas, or metastatic melanomas. Last, there are only isolated usages of the words “epidermotropism” or “epidermotropic” in inflammatory conditions in part because, as it can be inferred from literature, those words are apparently synonymous with malignancy.

In addition, epidermotropism and epidermotropic seem to imply the diagnosis of mycosis fungoides, and vice versa. Equally and for the same reason, epidermotropism is linked to an infiltrate of lymphocytes, and it is not used when the infiltrate is made of other cells.

What dermatopathologists call “epidermotropism” most of the time is the presence of lymphocytes in the epidermis. However, in more than half of the routine cases in a dermatopathology laboratory, there are lymphocytes within the epidermis, as in any spongiotic psoriasiform, or interface dermatitis, even in epidermal or melanocytic “tumors”, and none of these infiltrates are usually referred to as epidermotropic; other words, like exocytosis, are employed. Nor is the presence of cells other than lymphocytes in the epidermis referred to as epidermotropism, even though those cells move from dermal vessels to the epidermis, just as lymphocytes do in mycosis fungoides. It seems as if dermatopathologists, when looking at lymphocytes within the epidermis, made the choice between using as a designation either exocytosis or epidermotropism only after having decided whether the condition is benign or malignant or, more specifically, “non-lymphoma” or lymphoma. Even in those few cases in which the term *epidermotropism* is used for diseases that are not lymphomatous, it is only employed for malignant conditions, i.e., histiocytosis or metastatic melanoma.

In addition, there is no agreement universally on what each author means by epidermotropism. Some use it exclusively for the lymphocytes of mycosis fungoides others extend it to lymphocytes of lymphomas in general, still others use it for the presence in the epidermis of carcinoma or melanoma cells themselves and yet others for any inflammatory cell present in the epidermis, notwithstanding whether the process is malignant or benign. Moreover, the suffix *tropism* designates a movement that cannot be seen on the static tissues of a slide. A pathologist, however, should limit himself to describing the changes and their location with regard to normal structures and should avoid interpretations in regard to “movement.” For all these reasons, the words epidermotropism and epidermotropic are best avoided in description of microscopic findings on sections of tissue.

EPITHELIAL MUCIN: refers to mucopolysaccharides characterized by high content of neutral glycoprotein produced by epithelial cells. In skin, infundibulum of the surface epidermis is the major source of epithelial mucin, but sebaceous and eccrine cells also are capable of making mucin. Dermal mucin

differs from epithelial mucin by being constituted mainly of acid mucopolysaccharides.

EPITHELIAL STRUCTURES OF ADNEXA: derivatives of germinative cells of surface ectoderm in an embryo, one type of germ giving rise to hair follicles, sebaceous glands and ducts, and apocrine glands and ducts, and another type of germ to eccrine glands and ducts, those four structures epithelial being ones adnexal.

EPITHELOID: the oval shape of nonepithelial cells (the nucleus being oval and the cytoplasm being discernible readily) arranged in a syntactium that has a resemblance faint to cohesive cells of an epithelium. In histopathology of the skin, the word is applied to histiocytes of inflammatory diseases, such as sarcoidosis, and melanocytes of noninflammatory processes, such as melanocytic nevi, in which cells, with plump oval shape appear to touch one another like epithelial cells.

Epithelioid histiocytes characterized by plump oval nuclei and abundant eosinophilic cytoplasm are disposed snugly in collections of sarcoidal and tuberculoid granulomas, in contrast to nonepithelioid macrophages, which tend to be disposed as solitary units.

Epithelioid melanocytes, typified by plump oval nuclei and abundant eosinophilic cytoplasm, are seen, for example, in ovoid aggregations and fascicles in one of the numerous variants of “classic” Spitz’s nevus. They may be also seen in melanoma.

EPITHELOID MELANOCYTE: (SEE EPITHELOID)

EPITHELIOMA: is a French word for carcinoma, but which is employed by English-speaking dermatologists and pathologists in ways various, such as in trichoepithelioma (known also as “epithelium adenoides cysticum”), which is a benign proliferation of follicular germinative cells, basal cell epithelioma, which is a malignant proliferation of germinative follicular cells, and squamous cell epithelioma, which is a malignant proliferation of spinous cells, the latter two proliferations malignant qualifying as carcinomas.

EPITHELOID TUBERCLE: a collection of epithelioid histiocytes. When not surrounded by lymphocytes, they are referred to colloquially as naked tubercles and are a characteristic feature of the granulomas of sarcoidosis and its simulators; when surrounded by dense infiltrates of lymphocytes, they are called tuberculoid.

EPITHELIUM: denotes a layer of cells that covers surfaces of the body and membranes that line it. Epithelia are derived from all three germ layers, although most arise from ectoderm and endoderm. Epithelia are classified on the basis of layers into simple and stratified, and on the basis of cellular

characteristics into squamous, cubical, and columnar. Simple squamous epithelium consists of a single layer of flat cells such as those found in air spaces of the lungs. Epithelium that lines the lumen of blood vessels and body cavities is similar morphologically to simple squamous type but is categorized separately as endothelium and mesothelium, respectively. Simple cubical epithelium may be observed on the surface of the ovary. Simple columnar epithelium appears in portions of many ducts and glands, such as apocrine ones. Specialized columnar epithelium with capability to secrete mucus is typical of the lining of the stomach, the cervical canal of the uterus, and the conjunctiva. Pseudostratified columnar epithelia present in the male urethra and in large excretory ducts of a parotid gland consist of a single layer of tall cells whose nuclei are situated at different levels and thereby create the impression of being arranged in several layers. Stratified columnar epithelium may be seen in large ducts of exocrine glands. Stratified epithelium that does not cornify is typical of mucous membranes of the mouth, upper part of the esophagus, and vagina. Stratified epithelium that cornifies covers the surface of the skin, i.e., the epidermis, and lines ducts of adnexa, such as those of sebaceous glands. Transitional epithelium is seen only in the urinary bladder. Epithelial cells appear histologically cohesive.

EROSION: loss of part or all of an epidermis without any loss of dermis. In contrast, ulcer denotes loss of entire epidermis and at least part of the dermis. Stereotypical erosion is the denuded lesion of pemphigus vulgaris in which a layer of basal cells remains intact beneath the blister. The most common cause of erosions in skin is lively excoriation by long, sharp fingernails that act like talons. Because erosion does not involve the dermis, it heals without a scar, unless infection has supervened and, with it, ulceration.

ERYTHRODERMA: redness often accompanied by scaling of the entire skin such as occurs in psoriasis, mycosis fungoides, and so-called atopic dermatitis and numerous other skin diseases.

Proper biopsy, dermatopathologic interpretation and clinico-pathologic correlation can often help one come to a diagnosis.

EXO-ENDOPHYTIC: means growing outward and inward from the skin surface, as in fully developed squamous cell carcinoma of the keratoacanthomatous type.

EXOPHYTIC: growing outward, as from the skin surface, like a filiform verruca.