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Dermatopathology: an abridged compendium of words. A discussion of them and opinions about them. Part 2

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Citation: Hookerman J. Dermatopathology: an abridged compendium of words. A discussion of them and opinions about them. Part 2. Dermatol Pract Conc. 2013;3(4):1.2. http://dx.doi.org/10.5826/dpc.0304a1.2.

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The compendium (Part 2)

– B –

BALLOON MELANOCYTE: an abnormally large melanocyte that has abundant, clear cytoplasm and a normal nucleus. The ballooned appearance of these cells is due to abnormal melanosome development.

BALLOONING: "intracellular edema" of epidermis and epithelial structures of adnexa, recognizably morphologically as swollen pale cytoplasm of affected spinous cells. Rupture of decidedly ballooned keratocytes leads to formation of a pattern of epidermis that resembles a net and, therefore, is termed reticular alteration. When ballooning of keratocytes is extraordinary in itself or is so extensive that reticular alteration, has developed, necrosis of those cells is invariable, as is observed characteristically in infections by some viruses, such as those of herpes, pox, and Coxsakie, but also of noninfectious diseases such as erythema multiforme, fixed drug eruption, and Mucha Haberman disease. The term ballooning, if unmodified, is enigmatic because ballooning refers also to the appearance of swollen cytoplasm in types of cells other than keratocytes, such as ballooned melanocytes of nevi and melanomas (balloon-cell nevus and balloon cell melanoma, respectively).

BASAL LAMINA: is a structure, recognizable through an electron microscope, formed of extracellular material present along the basal surface of epithelial cells and around muscles, nerves, and capillaries. It separates these structures from adjacent connective tissue.

BASALOID CELLS: that by conventional microscopy, more or less resemble those of the basal layer of the epidermis. Unfortunately, the term is applied to cells that look very different from one another such as germinative cells of trichoblastoma, and matrical cells of pilomatricoma.

BASEMENT MEMBRANE: the term "basement membrane" derives from observations of findings by conventional microscopy in contrast to "basal lamina" (lamina densa), which pertains to changes discernible only by electron microscopy. The basement membrane is situated between dermis and epidermis, and is demonstrated most compellingly when stained by the method of periodic acid-Schiff.

BASKET-WOVEN ORTHOKERATOSIS: is a thickened cornified layer whose cells are arranged in a fashion that resembles the pattern in a woven basket. The pattern is the one observed in the stratum corneum of histologic sections taken from normal skin anywhere on the integument except for palms and soles, sites at which corneocytes typically are organized compactly. In pathologic states, a cornified layer may be thickened but still maintain its basket-woven character as happens secondary to infectious diseases like tinea versicolor (caused by the fungus Malassezia furfur and/or glabrosum) and verruca plana (caused by papilloma virus).

BASKET-WOVEN PATTERN OF THE STRATUM CORNEUM: the normal appearance of the epithelial (and infundibular) cornified layer (except for that on the palms and soles) in sections of skin viewed by conventional microscopy.

BENIGN: refers to the behavior of a proliferation, namely, lack of capability to cause death either by destruction of tissue locally or by metastasis. The term should not be used to describe characteristics cytopathologic, i.e., "benign trichoblasts", because cells examined by conventional microscopy can not be identified reliably as being benign or malignant. Nuclei of those cells, however, can be described accurately as being either monomorphic or pleomorphic. A judgment about nature benign is made on the basis of both the pattern architectural (silhouette) and the attributes cytopathologic of it, that determination being predicated ultimately on experience previous with the behavior biologic of other proliferations of appearance similar. In general, the silhouette of a proliferation is the best gauge if its conduct biologic, the silhouette being the representation morphologic of that behavior.

BENIGN MELANOMA: an oxymoron because melanoma, by definition, is a malignant neoplasm, i.e., it has the potential to kill by metastasis or local destruction. In short, there is no benign melanoma.

B-FRINGE: refers to the boundary between the bulbar supramatrical zone below and the bulbar keratogenous zone above. It is defined by loss of trichohyalin granules from Henle's layer. At this site, several characteristic morphologic changes occur in the bulb of a follicle, to wit, Henle's layer of the inner sheath begins to cornify, the cuticle of the inner sheath acquires trichohyalin granules, and the outer sheath becomes multilayered. It is at this site that preparation for cornification of the hair cortex begins. B-fringe is situated below A-fringe (Adamson's fringe), which marks the end of the keratogenous zone. "B" stands for "below" Adamson's fringe.

BIOPSY: refers specifically to the removal of tissue from a living person and to examination by microscopy of sections cut from the specimen of that tissue, usually for purposes of diagnosis. There are several types of biopsy of skin, excision in toto, excision in parte (erroneously termed "incisional"), punch, and shave (also called horizontal or tangential) using a knife blade or razor blade and variants such as saucerization (a variant of shave using a razor blade which is bowed for deeper removals.) Each of these biopsy techniques has value and lack there of. (SEE SHAVE BIOPSY; SEE SAUCERATIZATION)

BLISTER: a collection of fluid, irrespective of size, within the epidermis, i.e., pemphigus vulgaris, or immediately beneath the epidermis, i.e., bullous pemphigoid, or, episodically, in both sites concurrently, i.e., some examples of erythema multiforme. The terms, vesicle and bulla, are subsumed by the word, blister.

BORDERLINE MELANOMA: a notion introduced by Richard J. Reed for a melanocytic proliferation deemed by him to elude diagnosis either as nevus or melanoma. "Borderline" malignancy implies a state somewhere between "benign" and "malignant." In our opinion, there is no such region and in the realm of melanocytic proliferations only four diagnoses are possible, to wit, nevus, melanoma, melanoma in association with a nevus, and "I don't know and the lesion should be removed completely." Of course, an explanation of why one does not know should be included. "Borderline Melanoma" is a violation of principles fundamental to classic pathology and an evasion from admitting that one really does not know. In 1975, Reed wrote that pigmented spindle cell nevus "may represent a variant of borderline melanoma."

BOWEN'S DISEASE (SEE IN-SITU)

BOWENOID: means resembling Bowen's disease histopathologically, i.e., a squamous-cell carcinoma in situ characterized by the presence of atypical keratinocytes throughout much of the thickness of a thickened epidermis. Nuclei are crowded and vary from small and monomorphous to large and strikingly pleomorphic; some keratocytes may be multinucleate, and others may be in mitosis. Cytoplasm of neoplastic cells may be pale. Bowenoid papulosis refers to histopathologic findings like those in Bowen's disease within a lesion, situated usually on genital skin, whose silhouette is that of condyloma acuminatum, the squamous-cell carcinoma in situ having been induced by papillomavirus. The designation "bowenoid" also is applied to sebaceous carcinoma in situ on an eyelid and to an uncommon expression of trichoblastic (basal-cell carcinoma). The problems with the word "in-situ" will be discussed under "in-situ".

BULBOUS: resembling a bulb in shape-as do the bulb of a flower or an onion, the lowest part of a hair follicle, and the aggregations of neoplastic cells in the lower part of a stereotypical verrucous carcinoma.

BULGE: denotes a protruding part, an outward curve, or a swelling. In cutaneous embryology and histology, each of three hemispherical protrusions that develop on a side of an embryonic follicle is referred to as a bulge. Those protrusions, from top to bottom, represent a future apocrine gland and duct, a future sebaceous gland and duct, and a future site for attachment of smooth muscles of hair erection.

In fetal and post-fetal life, the so-called bulge (this differs from "the bulge" referred to above relating to the "embryonic follicle") of a follicle is actually several bulges of isthmic and stem epithelium, each of which acts as a site for attachment of

a fascicle of muscle of hair erection. That distinctive structure, which is the one meant when the term "the bulge" is used colloquially and incorrectly, is known also as der Wulst, which in German means "the bulge." Bulges seem to have no role in the follicular cycle.

BULLA: a blister that is more than 1.0 cm in greatest diameter. Like its smaller analogue, i.e., a vesicle, a bulla may be situated within the epidermis, as in severe allergic contact dermatitis beneath the epidermis, as in cicatrical pemphigoid, or in both sites together in the same lesion, as in some responses to the "bite" of an insect.

BURROW: a tunnel, usually in the cornified layer or spinous zone of the epidermis, fashioned by a parasite. The female mite of Sarcoptes scabiei deposits her eggs and dumps her feces in a burrow fashioned by her in the stratum corneum and from which site she dines on fluid sucked from the viable epidermis. The activity of the mite and progeny of it, namely, larvae and nymphs, conducted within a burrow of scabies, namely, ingestion and defecation, gives rise to intense pruritus.

The larva or "creeper" of Ancylostoma braziliense, the cause of cutaneous larva migrans, lives in a tunnel created by serpentine movements of it through the lower most part of the epidermis.