Misnomers in Dermatology

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Abstract

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Background: Dermatology lexicon is rich with descriptive terminology. However, for a variety of reasons, it also includes a number of misnomers. ObjectiveTo review the more commonly encountered and critically appraised misnomers in dermatology.

Methods: A search of MEDLINE (1966 – 2004), eMedicine dermatology text and electronic versions of two standard dermatology texts, Fitzpatrick's Dermatology in General Medicine and Dermatology, was performed using the permutations of the terms: dermatology, skin, cutaneous, and misnomer.

Results: Greater than 40 misnomers were identified.

Conclusions: Misnomers in dermatology stem largely from lack of appreciation of underlying etiology or histopathological features of certain skin conditions, imprecise historical observations and erroneous eponymous credit. Historical, clinical, or histopathological explanations are used to clarify the nature of the misnomers, and in some cases suggestions for improved terminology are provided.

Sommaire

Antécédents: Le lexique dermatologique est riche en terminologie descriptive. Toutefois, pour diverses raisons, il contient également de fausses appellations.

Objectif: Passer en revue les fausses appellations les plus fréquentes en dermatologie. *Méthodes:* Une recherche sur MEDLINE (de 1966 à 2004), dans des textes en dermatologie sur eMedicine, et dans les versions électroniques de deux textes standards (*Dermatology in General Medicine* et *Dermatology*) a été effectuée au moyen de permutations des termes suivants : dematology (dermatologie), skin (peau), cutaneous (cutané) et misnomer (fausse appellation).

Résultats: On a trouvé plus de quarante fausses appellations fréquentes.

Conclusions: Les fausses appellations en dermatologie émanent essentiellement d'un manque d'appréciation de l'étiologie ou des caractéristiques histologiques sous-jacentes à certaines atteintes cutanées, des observations historiques non précises et des éponymes erronés. Des explications historiques, cliniques et histopathologiques sont utilisées afin de clarifier la nature des fausses appellations et, dans certains cas, de suggérer une amélioration à la terminologie.

Precise and unambiguous medical lexicon serves to facilitate and improve communication amongst health professionals.¹ Sir William Osler clearly saw the importance of an exact medical lexicon when he wrote, "Use guidelines for naming diseases. If our knowledge does not permit to give a name according with the etiology of the disease, the rule should be to pick the one which seems least objectionable, taking priority and usage into account."² Dermatology, with its rich descriptive terminology, is a field where a precise and reliable lexicon is of utmost importance. The existing editions of the dictionary of dermatologic language by Leider, Rosenblum and Carter, recently reviewed by Jackson,³ as well as Glossary of basic dermatology lesions published by the International League of Dermatological Societies Committee on Nomenclature⁴ have fallen short of providing an exact and reproducible framework for communication in cutaneous science. We must thus give earnest heed to the recent calls for a complete revised dictionary in dermatology,^{1,3,5–7} and auspiciously the Dermatology Lexicon Project is presently underway.⁸ In the meantime, we have to deal with a dermatology vocabulary that has its share of ambiguous terms and misnomers.

Misnomer is defined in the Oxford English Dictionary as "a name or a term used wrongly."⁹ We searched MEDLINE (1966 – 2004), the eMedicine dermatology text (available at www.emedicine.com) and electronic versions of two standard dermatology texts, Fitzpatrick's

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Dermatology in General Medicine¹⁰ and Dermatology,¹¹ using the permutations of the terms: dermatology, skin, cutaneous, and misnomer. Greater than 40 misnomers were identified. Some of these terms are more commonly used by non-dermatologist physicians (e.g. athlete's foot, ringworm), while others are a mainstay in the dermatologists' lexicon (e.g. mycosis fungoides, pyogenic granuloma). Unfortunately, even commonly used terminology in our specialty including macule, papule, pustule, ulcer, and wheal have not been clearly defined.^{12,13} Some of the more commonly encountered and critically appraised misnomers are herein reviewed.

Misnomers in Dermatology

Acanthosis nigricans is a well-defined clinical entity, yet is at least a partial misnomer. Histopathologically, hyperkeratosis and papillomatosis of the epidermis are observed, whereas acanthosis, an increased epidermal thickness due to hypertrophy or hyperplasia of the spinous layer, is seldom present.

Adenoma sebaceum

Tuberous sclerosis is associated with multiple facial angiofibromas, once termed adenoma sebaceum. The name is a misnomer since the neoplasm is not a hypertrophy or tumerifaction of the sebaceous glands,¹⁴ although it is distributed in the "sebaceous" area of the face. The major histologic changes observed are dermal fibroblastic proliferation and slightly ectatic vessels.

Athlete's foot is a misnomer, as it does not refer to the physical condition of the foot specific to athletes. Merely a popular name given to the pedal fungal infection, the condition is more appropriately labelled tinea pedis.

Auspitz phenomenon

The eponymously credited sign was not first discovered by Heinrich Auspitz (1835–1886)¹⁵ Both Devergie jeune (1860) and Hebra (1845) observed this clinical sign earlier, as did Robert Willan (1808), Joseph Plenck (1776), and Daniel Turner (1736)¹⁵

Chemosurgery is a term occasionally applied to Mohs micrographic surgery, which, when used today, is a misnomer.¹⁶ When Dr. Frederick Mohs initially introduced the procedure, zinc chloride chemical paste was applied to the tumour and the surrounding skin for fixation. Since 1974, however, the procedure has involved excising the tumour with special repeated histologic examination without the use of in-vivo chemical fixation.¹⁷

Collagen disorders

Given that collagen is the most abundant protein within connective tissue, connective tissue disorders are occasionally referred to as "collagen disorders." The term is a misnomer as connective tissue also contains other elements, such as elastin and glycoproteins. At present, the idiom collagen disorders should be restricted to inherited conditions that affect the synthesis or expression of collagen, such as Ehlers–Danlos syndrome and osteogenesis imperfecta.

Dyshidrosis and *dyshidrotic eczema* are misnomers. The pathophysiology of dyshidrosis is based on inflammation and foci of spongiotic dermatitis on palmoplantar skin. Dyshidrotic vesicles are not related to sweat gland dysfunction, and are not, except by chance, associated with sweat ducts.

Follicular atrophoderma

(Bazex–Dupré–Christol syndrome). This is an X-linked dominant condition characterised by the development of basal cell carcinomas on the face, hypohidrosis, hypotrichosis, and follicular atrophoderma.¹⁸ The latter refers to ice-pick marks or patulous follicles on the extremities. The term is a misnomer since no evidence of atrophy of the epidermis, hair, or dermis has been reported, and the elastic fibers are normal. On histopathology, hair follicles appear abnormally wide, and are surrounded by an inflammatory cell infiltrate. Atrophic patulous pilosebaceous orifices are seen in the final stage of many follicular inflammatory processes, e.g., discoid lupus erythematosus and acne vulgaris.

Goltz syndrome (Focal dermal bypoplasia) is a misnomer given that the skin lesions evolve as accumulations of fat rather than hypoplasia of the dermis.

Granuloma gluteale infantum is a skin disorder of controversial etiology manifested clinically by oval reddish-purple "granulomatous" nodules on the gluteal surfaces and groin areas of infants. The term is a misnomer since no granulomas are found in the histopathology of these lesions.¹⁹ Irritant contact dermatitis is thought to play a role in the pathophysiology of this condition.

Herpes gestationis

This bullous dermatosis of pregnancy is a misnomer that causes undue infectious isolation precautions by uninformed personnel on obstetrics wards. The disease was originally named on the basis of the morphological herpetiform features of the blisters, but is not related to any active or prior herpes virus infection.²⁰ Pemphigoid gestationis is a better term for this condition.

Hidradenitis suppurativa is a disorder of follicular epithelium in apocrine gland-bearing skin, characterised by comedone-like follicular occlusion, chronic relapsing inflammation, mucopurulent discharge and odour, and progressive scarring. Plewig and Kligman pointed out that hidradenitis suppurativa is a misnomer because of the lack of apocrine gland involvement, and suggested the term acne inverse.^{21–23} More recently, Sellheyer and Krahl²⁴ argue that hidradenitis suppurativa is pathogenically an occlusion of hair follicles rather than a

suppurative inflammation of apocrine sweat glands and urge us to finally abandon this misnomer in favour of acne inversa.

Horn cysts

These intraepidermal whorls of invaginated keratin found in seborrheic keratoses are not true cysts because each connects to the skin surface via a prominent ostium. Horn pseudocysts has been proposed as a more appropriate term.²⁵

Hot-comb alopecia is a term used to denote a distinctive form of scarring alopecia primarily seen in black women.^{26,27} The name is thought to be misleading as hot-comb use was found to be an unlikely cause of alopecia in many reported cases. Follicular degeneration syndrome appears to be a more appropriate nomenclature.²⁸

Impetigo herpetiformis is a dermatosis of pregnancy with a misleading name given that the condition is now generally considered to be a rare form of pustular psoriasis during pregnancy.

KID (keratitis, ichthyosis, and deafness) syndrome

The name has been suggested to be a misnomer as the skin manifestations of the syndrome are more accurately characterised as diffuse hyperkeratotic erythroderma rather than ichthyosis. The term keratodermatous ectodermal dysplasia (KED) has been proposed.²⁹

Keratosis follicularis (Darier's disease) is characterised by keratotic papules predominately affecting the seborrheic regions such as the upper trunk, and the head and neck areas. The term is somewhat a misnomer since the lesions are not limited to hair follicles.

Knuckle pads is the term historically used in reference to discrete fibrous keratodermas affecting the metacarpophalangeal and interphalangeal joints. The majority of these lesions occur over the proximal interphalangeal joints and not over the knuckles or the metacarpophalangeal joints, and hence the term is a misnomer.³⁰

Leser-Trélat Sign

The eponym has been wrongly credited to two European surgeons, Edmund Leser and Ulysse Trélat. While they apparently observed cherry angiomatosis in patients with cancer, it was Holländer who first linked internal cancer with seborrheic keratoses in 1900.³¹

Lupus anticoagulant

The term was initially coined by Feinstein and Rappaport because of anticoagulant activity observed *in vitro*, but is regarded as a misnomer as procoagulant activity occurs *in vivo*, and most patients do not have lupus.³²

Lymphangiosarcoma is a misnomer since this malignancy arises from the blood vessels rather than the lymphatics. Hemangiosarcoma is a more appropriate term.

Malignant pustule of anthrax

Although the primary lesion of anthrax has been called a malignant pustule, the term is a misnomer. The lesion is not purulent and pustules, if present, represent secondary infection due to streptococci or staphylococci.

Microdermabrasion is a misnomer since the technique does not cause injury of the dermis, but rather acs at the level of the epidermis.

Moniliasis has been used as a synonym for candidiasis in the past. The term is a misnomer since moniliasis refers to a stage of ascomycetes and has no relationship to the genus *Candida*.

Mycosis fungoides

The term came into use in 1806 by Jean-Louis Marc Alibert, a French dermatologist, when he described a severe disorder in which large necrotic tumours resembling mushrooms presented on a patient's skin. As is known today, the term is a misnomer; the condition is a cutaneous T-cell lymphoma and no association with a fungus exists.

Nevus comedonicus is a benign hamartoma of the pilosebaceous unit, and is a misnomer since typical comedones are not present.³³ The term follicular keratotic nevus has been proposed.

Nevus depigmentosus is a misnomer since the areas of leukoderma are hypomelanotic and not amelanotic.

Nodulocystic or cystic acne

Historically, the term nodulocystic or cystic acne has been extensively used, and yet is a misnomer. Not lined by an epithelium, "acne cysts" are not true cysts, and are more appropriately described as nodules or pseudocysts.

Palisaded encapsulated neuromas are small, solitary, asymptomatic papules, occurring predominantly on the face in middle age and characterised histologically by proliferation of Schwann cells and axons in the dermis. The term is a misnomer as no real palisading, nor encapsulation are observed. Renaming the lesion "solitary circumscribed neuroma" has been proposed.³⁴

Pautrier's microabscess is a collection of atypical lymphocytes found within the epidermis of lesions of cutaneous T-cell lymphoma. The term is a misnomer since an abscess characteristically refers to a collection of neutrophils²⁵ or alternatively to a cavity formed by liquefaction necrosis within a solid tissue.

Porokeratosis is a misnomer. While the cornoid lamellae occasionally correspond to ostia of eccrine glands or hair-follicles, this finding is fortuitous since the peripheral border of the lesions moves centrifugally and is not permanently bound to epidermal adnexae.³⁵

Preauricular sinus is a misnomer since the sinus opening is, in fact, usually on the auricle.³⁶

Pretibial myxedema is a term used to describe firm, non-pitting plaques or nodules arising on the skin in

Pubic lice

Crab lice or *Phthirus pubis* is also known as pubic lice, which is a misnomer. While the organism is typically found in the pubic area, it may affect any part of the body with secondary hair, including the eyelashes and eyebrows of children.

Pyogenic granuloma, also referred to as proud flesh, is a misnomer since the condition is neither pyogenic in nature, nor granulomatous on histology. A disorder of angiogenesis, it is clinically a vascular lesion and a lobular capillary hemangioma on histology. The term reactive hemangioma has been proposed as a more appropriate terminology.⁷

Ringworm

Tinea corporis is commonly referred to as ringworm, particularly by non-dermatologist physicians and the lay public, which stems from the annular appearance of the lesions. The term is a significant misnomer as no worms are associated with this condition.

Rocky mountain spotted fever (RMSF)

The term is a misnomer since the condition is relatively rare in the Rocky Mountain States. First noted in the mountains of Montana, RMSF is found most commonly in the Southeast and Central regions of the United States. The greatest number of incident cases are reported in North Carolina, Oklahoma, Arkansas, Missouri, Montana, South Dakota, and Wyoming.³⁸

Scleredema is a misnomer since histopathological examination reveals neither sclerosis nor edema, but rather a thickened dermis with mucin deposition between collagen bundles.

Sebaceous cyst is a misnomer for epidermal or epidermoid cysts. These keratin-containing cysts lined by epidermis are not of sebaceous origin.

Sinusoidal hemangioma is a misnomer as the lesion is a vascular malformation rather than a neoplasm.³⁹

Stasis dermatitis is thought to be a misnomer, as true stasis of blood does not occur.^{40,41}

Subungual melanoma is a variant of acral lentiginous melanoma. The term is believed by some to be a misnomer as it is often loosely used to connote true subungual melanomas, ungual melanomas, and periungual melanomas. A more accurate nomenclature, melanoma of the nail apparatus, should be used.⁴²

Tinea versicolor is a misnomer since the causative organism, *Malassezia furfur* or globosa, is not a dermatophyte. Pityriasis versicolor is increasingly being used as more appropriate terminology for this condition.

Transforming growth factor- β 1 (TGF- β 1)

The term is somewhat of a misnomer as TGF- β 1 is known to have antiproliferative rather than proliferative effects on most cell types.⁴³

Trichoadenoma refers to a benign follicular cystic neoplasm of the infundibular and isthmic differentiation enclosed by sclerotic stroma.⁴⁴ The term is a misnomer as no adenomas are of strictly follicular lineage, and the hair follicle is not a structure that exhibits glandular differentiation.⁴⁵

Trichomycosis

The term is a misnomer given that the causative agent is not a fungus but rather a bacteria (micrococcus), initially considered coryneform and now regarded as nocardia.

Verrucous hemangioma refers to a rare hyperkeratotic congenital vascular malformation of the superficial and deep dermis. The term is a misnomer as the lesion is not a hemangioma (neoplasm), but a malformation.⁴⁶

Discussion

Misnomers are best avoided. They are an impediment to communication and comprehension, especially for trainees, non-dermatologist physicians, and patients. Misnomers in dermatology arise for a variety of reasons, including lack of appreciation of underlying etiology or histopathological features of certain skin conditions, imprecise historical observations, as well as erroneous eponymous credit. Parenthetically, the use of eponyms in dermatology has been addressed previously.⁴⁷

Many skin diseases and diagnoses were named at a time when our understanding of etiology and pathophysiology were more primitive. Terms such as mycosis fungoides have existed for approximately two centuries, which makes changing the name very difficult. The current use of a more descriptively accurate label "cutaneous T-cell lymphoma" should over time leave "mycosis fungoides" as a footnote. Misnomer entities named more recently, such as transforming growth factor- β 1, could be more easily eschewed from our lexicon. For a specialty in which accurate communication is of paramount importance, it is surprising that terms such as pyogenic granuloma or impetigo herpetiformis continue to be used, as these offer no useful description or insight to the physician or patient. Incongruities in the dermatological literature likely persist because of training and habit, and because a universal dictionary has yet to be adopted and applied.

An orchestrated global effort by the dermatology community is needed to identify and clarify our lexicon, removing misnomers from the published literature and their use in residency training programs and clinical practice. A complete dictionary of dermatology, conceivably via the Dermatology Lexicon Project, will offer standardisation of dermatology vocabulary and present a framework for improved communication.⁸ The list of misnomers in dermatology is far greater than what could be covered in this brief review. Some terminology is still under debate amongst dermatologists and dermatopathologists. While an exhaustive list is difficult to prepare in a field with so many diagnostic entities, it is hoped that discussion is stimulated, misnomers identified, and the continuously evolving language of dermatology made more precise.

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