

Dermatologic Signs

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Background: Dermatology signs serve as important clues to primary skin disorders and internal conditions.

Objective and Methods: To highlight major cutaneous signs based on a MEDLINE literature search from 1966 to March 2006.

Results and Conclusions: A multitude of signs exist in dermatology. Appreciation and knowledge of cutaneous signs will enhance the care of patients with dermatologic manifestations.

Antécédents: Les signes dermatologiques sont d'importants indices de troubles cutanés primaire et de maladies internes.

Objectif et méthodes: Mettre en évidence les principaux signes au moyen d'une recherche dans MEDLINE sur les articles parus entre 1966 et mars 2006.

Résultats et conclusions: Une multitude de signes dermatologiques existe. La connaissance de ces signes améliorera les soins prodigués aux patients présentant des symptômes cutanés.

“What is most difficult of all? It is to see with your eyes what lies in front of your eyes”

—Goethe

IN THE MEDICAL LEXICON, the term *sign* refers to an objective physical finding observed by an examiner. Diagnosis in dermatology largely rests on the visual inspection of the skin, and certain signs serve as important clues to primary skin disorders. With the skin being a window to the human body, cutaneous signs can also indicate internal disease. Many cutaneous signs were compiled by Al Aboud and colleagues.¹ The objective of this review is to highlight major signs in dermatology in our experience based on a MEDLINE literature search from 1966 to March 2006. Only signs presenting as a cutaneous eruption that is visible, palpable, or elicited by direct manipulation of the skin are included herein.

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Albright's dimpling sign was described by Fuller Albright (1900–1969) and refers to dimpling over the knuckles, enhanced by clenching of the fist.² It results from

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underdeveloped metacarpal heads in Albright's hereditary osteodystrophy, a syndrome characterized by short stature, a round face, a thick neck, short limbs, obesity, and short metacarpals. Albright's sign is also used to refer to the short fourth metacarpal digits observed in nevroid basal cell carcinoma syndrome.

Asboe-Hansen sign was described in 1960 by Gustav Asboe-Hansen (1917–1989), a Danish dermatologist.³ The fascinating history of discovery of mechanical symptoms in blistering dermatoses was recently reviewed by Grando and colleagues.⁴ Asboe-Hansen sign is also known as blister-spread sign, which refers to the ability to enlarge a blister in the direction of the periphery by applying mechanical pressure on the roof of the intact blister, spreading of a blister into a clinically normal skin when lateral pressure is applied on the edge of a blister.⁴ Angular blister formation is thought to be associated with intraepidermal acantholytic diseases (eg, pemphigus), whereas rounded blister formation is associated with subepidermal acantholytic diseases (eg, bullous pemphigoid). It is also observed in bullous drug eruptions. Importantly, the sign is different from Nikolsky's sign (reviewed below). 1

Typical plaque psoriasis presents with dry, thin, silvery-white or micaceous scale. *Auspitz sign* refers to the appearance of a red, glossy surface with pinpoint bleeding on removal of the scale by scraping or scratching. This occurs as a result of removal of overlying suprapapillary epithelium with subsequent rupture of dilated dermal capillaries. Although Heinrich Auspitz, an Austrian dermatologist (1835–1886), is credited for the Auspitz sign, the term is a misnomer. Both Devergie Jeune (1860)

and Hebra (1845) observed this clinical sign before Auspitz, as did Robert Willan (1808), Joseph Plenck (1776), and Daniel Turner (1736).⁵ Importantly, Auspitz sign is neither sensitive nor specific for psoriasis⁶ as it occurs in other skin conditions, including Darier's disease and actinic keratosis.

Named after an English surgeon, William Henry Battle (1855–1936), *Battle's sign* occurs after fracture of the base of the skull in the posterior cranial fossa. Blood accumulates beneath the fascia and causes discoloration at the mastoid process. Battle's sign is highly specific and predictive for the basal skull fracture.

Blue dot sign can manifest as the torsion of the testicular epididymis and appendices. A blue or black nodule is visible under the skin on the superior aspect of the testis or epididymis.⁷ The area is also usually quite tender.

Butterfly sign is characterized by erythema over the malar eminence, corresponding to the wings of a butterfly, and the nasal bridge, representing the body of the butterfly.⁸ This sign is classically described in lupus erythematosus, but it is important to differentiate it from other causes of facial erythema, such as rosacea, seborrheic dermatitis, and erysipelas. Butterfly sign is also occasionally used in reference to a butterfly-shaped area of sparing observed over the upper central back, corresponding to the zone that is difficult to reach by hands, in conditions with severe generalized pruritus, such as atopic dermatitis.⁹

Buttonhole sign classically refers to cutaneous neurofibromas. It indicates the ability to invaginate the tumor into the underlying dermal defect with digital pressure. The resulting sensation is that of inserting the finger into a buttonhole.¹⁰ This occurs owing to the soft myxoid stoma and dermal defect caused by the protruding tumor. Buttonhole sign may also be present in syphilitic chancre; a buttonhole-like consistency is noted on the edge and base of the ulcer on palpation. Furthermore, the sign may also be present in old pigmented nevi.

Cluster of jewels sign, also termed *string of pearls* or *rosettes sign*, refers to an early stage of chronic bullous disease of childhood, when new lesions appear at the margin of older ones, resembling a cluster of jewels.¹¹

Corn-flake sign is seen in Kyrle's and Flegel's diseases. The polygonal irregular configuration of the lesions is quite characteristic. The lesions tend to occur over the lower extremities.

Crowe's sign, also known as axillary freckling, is one of the defining features of type 2 neurofibromatosis. Freckling occurs in the axillae but may also be observed

in other areas, such as the perineum. Crowe's sign typically develops at a later age than café au lait macules.

Cullen's sign, also known as *Turner-Cullen sign*, is accredited to Thomas Stephen Cullen (1868–1953). The sign consists of periumbilical bruising, seen several days after subcutaneous intraperitoneal hemorrhage, which can result from etiologies such as ruptured ectopic pregnancy and acute pancreatitis.¹² In patients with acute pancreatitis, Grey Turner's sign (see below) may also be seen, although both of these signs occur in only approximately 5% of cases.

Darier's sign was named after Ferdinand-Jean Darier (1856–1938), a French dermatologist.¹³ The sign consists of whealing, circumferential erythema, and localized pruritus elicited by scratching or rubbing of a lesion. It occurs in conditions with an increase in the number of mast cells in the dermis, including urticaria pigmentosa, systemic mastocytosis, insect bite reactions, neurofibroma, juvenile xanthogranuloma, and acute neonatal lymphoblastic leukemia. *Pseudo-Darier's sign* is elicited when stroking causes transient induration with piloerection and is present in several conditions, including smooth muscle hamartoma and Becker's nevus.

Deck chair sign, or papuloerythroderma of Ofuji, presents as a widespread eruption of erythematous papules that coalesce into rectangular plaques. The term refers to the distinctive pattern of sparing of the natural skin folds, resembling the slats of a deck chair.¹⁴ The sign is not specific and has also been reported in cutaneous Waldenström's macroglobulinemia and other conditions.¹⁵

Dimple sign, also known as *Fitzpatrick's sign*, is a clinical feature used in diagnosing dermatofibromas. Lateral compression with the thumb and index finger leads to depression of the lesion. This dimpling effect is secondary to the lesion being attached to the subcutaneous fat. The sign may be useful in differentiating dermatofibromas from other lesions, including malignant melanoma. However, the sign is not completely sensitive or specific to dermatofibromas, and other diagnostic investigations, such as dermatoscopy, may help confirm the clinical suspicion of dermatofibroma.¹⁶

Dirty neck sign refers to reticulate pigmentation of the neck seen in patients with chronic atopic dermatitis. The condition was described in 1987 by two different groups, Manabe and colleagues and Colver and colleagues.^{17,18} The label "dirty neck" was given because of the resemblance to the appearance of unwashed skin, with the anterolateral aspects of the neck typically affected. The pigmentary changes are secondary to melanin incontinence.¹⁹

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Doughnut sign is seen in patients with scleromyxedema.²⁰ Central depression surrounded by an elevated rim of skin is noted on the extended proximal interphalangeal joint.

Drip sign is found in dermatitis artefacta produced by corrosive liquids. Patterned burned areas correspond to the areas of dripping of the liquid when applied by the patient.

Dubois' sign is shortening of the little finger associated with congenital syphilis.²¹ This feature is seen occasionally as a late stigma of the disease. It may be associated with other stigmata of congenital syphilis, such as Hutchinson's triad (deafness, keratitis, and pointed teeth), perioral rhagades, optic atrophy, and broad-based saddleback nose.

Ear lobe sign is observed in patients who develop contact dermatitis to a substance applied with the hand to the face and neck. Sparing of the diagonal crease of the ear lobe on the ipsilateral side occurs, whereas the contralateral side is affected. This pattern is secondary to the hand-sweeping movement made during application of the substance.²²

Enamel paint sign is seen in patients with kwashiorkor, a nutritional deficiency endemic in tropical and subtropical regions. Sharply demarcated hyperpigmented desquamating patches and plaques resembling enamel paint occur on the skin, predominantly in areas of pressure and irritation.²³ The underlying skin is inflamed and raw.

Exclamation mark hair sign refers to the proximal tapering of hair occasionally seen in alopecia areata, where the dot represents the remains of the bulb. The sign is not pathognomonic for alopecia areata, and its presence may lead to misdiagnosis.²⁴

Flag sign refers to horizontal alternating bands of discoloration in the hair shafts corresponding to periods of normal and abnormal hair growth. The discoloration may be reddish, blonde, gray, or white depending on the original hair color. The flag sign may be seen in patients with nutritional deficiencies, such as kwashiorkor, and with certain medications, such as intermittent high dosage of methotrexate or following chemotherapy.²⁵ Patients with ulcerative colitis may manifest the flag sign.

3 *Forchheimer's sign* refers to an enanthem of red macules or petechiae confined to the soft palate in patients with rubella. The sign presents in up to 20% of patients during the prodromal period or on the first day of the exanthem.

4 *Frank's sign*, originally described in 1973, refers to a diagonal groove across the ear lobe in adults. The sign has been observed to be a marker of the coronary disease, independent of risk factors but frequently associated with them.²⁶ However, more recently, Frank's sign was reported

to have no association with coronary artery disease or retinopathy in a group of patients with type 2 diabetes.²⁷

Gorlin's sign is seen in patients with Ehlers-Danlos syndrome and is accredited to Robert James Gorlin, an American oral pathologist and geneticist. It is used to describe the ability to touch the tip of the nose with the extended tongue.

Gottron's sign is a feature of dermatomyositis and is named after Heinrich Adolf Gottron (1890–1974), a German dermatologist. The sign refers to symmetric confluent macular violaceous erythema that occurs over the knuckles, hips, knees, and medial ankles. This feature is seen in 70% of patients with dermatomyositis but may be also observed in systemic lupus erythematosus. Gottron's sign is different from *Gottron's papules*, which are small lichenoid hyperkeratotic violaceous papules located primarily over the interphalangeal joints of the hands. 5

Grey Turner's sign is accredited to the English surgeon George Grey Turner (1877–1951). The sign refers to induration and bruising seen on the skin over the costovertebral angle secondary to the spread of blood from the anterior pararenal space. The condition is commonly associated with acute hemorrhagic pancreatitis and other causes of retroperitoneal hemorrhage.²⁸

Groove sign is classically noted in heterosexual males with lymphogranuloma venereum.²⁹ The term refers to the inflammatory mass of femoral and inguinal nodes separated by a depression or groove made by Poupart's (inguinal) ligament, which occurs in 20% of affected men. 6

Hair collar sign is an important cutaneous marker for neural tube closure defects of the scalp.³⁰ The sign consists of a ring of dark coarse hair surrounding a malformation, such as aplasia cutis, encephalocele, meningocele, or heterotopic brain tissue. The defect is often in the midline, and the occipital or parietal scalp is typically affected.

Hanging curtain sign is seen in patients with pityriasis rosea.³¹ When the skin is stretched across the long axis of the herald patch, the scale is noted to be finer, lighter, and attached at one end, which tends to fold across the line of stretch.

Heliotrope sign is seen in patients with dermatomyositis as a violaceous erythema involving the periorbital skin.³² The term refers to the purplish color of the flowers of the heliotrope plant, so named because its flowers rotate to face the sun. Similar to Gottron's sign, the heliotrope sign is strongly suggestive of dermatomyositis.

Hertoghe's sign, also known as madarosis, is characterized by the lack of the outer third of the eyebrows. During the 1980s, Hanifin and Rajka included Hertoghe's sign as

7 part of the minor criteria for diagnosing atopic dermatitis. However, the validity of these criteria has been subsequently debated. The differential diagnosis of Hertoghe's sign includes atopic dermatitis, trichotillomania, ectodermal dysplasia, alopecia areata, alopecia mucinosa, leprosy, syphilis, ulerythema ophryogenes, systemic sclerosis, and hypothyroidism. It can also sometimes be seen in normal elderly patients.

Hoagland's sign is early and transient bilateral upper lid edema occurring in patients with infectious mononucleosis. The sign is usually present only for the first few days of the clinical presentation of the illness. Hoagland also described other criteria important for diagnosing infectious mononucleosis.³³

Holster sign is found in dermatomyositis. Pruritic, macular, violaceous erythema affects the lateral aspects of hips and thighs.

Sir Jonathon Hutchinson (1828–1913) was a renowned English surgeon, whose name is accredited to many signs and eponyms. *Hutchinson's nail sign* was first described in 1886 and refers to periungual extension of brown-black pigmentation onto the proximal and/or lateral nail folds. The presence of Hutchinson's sign should raise the suspicion of subungual melanoma; however, the sign is neither highly specific nor sensitive. *Pseudo-Hutchinson's sign* represents the presence or illusion of pigment in the perionychium and can be associated with a variety of disorders.³⁴ Kawabata and colleagues examined 6 subungual melanomas in situ and 18 subungual melanocytic nevi and compared pigmentation of the nail plates and hyponychium with the use of a dermatoscope.³⁵ Hutchinson's sign on the hyponychium was not always evidence of subungual melanoma; however, a wide difference was observed in dermatoscopic features, suggesting that dermatoscopy can help with the diagnosis of subungual melanoma.³⁵

Hutchinson's nose sign refers to the presence of vesicles occurring on the tip of the nose in patients with herpes zoster. This presentation indicates that the nasociliary branch is affected and that eye involvement may be present or forthcoming; therefore, an ophthalmologic assessment is necessary for these patients. However, some believe that this association is not as strong as once believed.³⁶

Jellinek's sign refers to eyelid pigmentation occasionally seen in hyperthyroidism. The hyperpigmentation is secondary to increased corticotrophin levels and may also occur on other areas of the face but usually spares the buccal mucosa.

Leser-Trélat sign, also known as eruptive seborrheic keratosis, is accredited to two European surgeons, Edmund

Leser (1853–1916) and Ulysse Trélat (1828–1890). The sign is defined as the sudden eruption of multiple seborrheic keratoses, which are often pruritic, and is classically associated with internal malignancy.³⁷ Adenocarcinomas are typically reported, particularly of the stomach³⁸ and colon but also of the breast, uterus, esophagus, and pancreas. Other reported associations include lung cancer,³⁹ melanoma,⁴⁰ and mycosis fungoides.⁴¹ Because both seborrheic keratoses and cancer are prevalent in the elderly, the validity of Leser-Trélat sign has been questioned.⁴² An association with malignant acanthosis nigricans has been proposed as one of the features that support the legitimacy of the sign as a paraneoplastic marker.⁴³ Besides acanthosis nigricans, other signs of malignancy may occur with Leser-Trélat sign, including acquired hypertrichosis, tylosis, florid cutaneous papillomatosis, and acrokeratosis of Bazex.

Muehrcke's sign refers to paired, transverse, narrowed white bands that run parallel to the lunula of the nails and are seen in patients with hypoalbuminemia or those receiving chemotherapy agents. They occur usually on the second, third, and fourth fingernails but not on the thumbnail. The distal band tends to be wider than the proximal band. Conditions resulting in Muehrcke's sign that are associated with hypoalbuminemia include nephrotic syndrome, glomerulonephritis, liver disease, and malnutrition.

In patients with scleroderma, ridging and tightening of the neck skin can form a visible and palpable tight band that lies over the platysma in the hyperextended neck.⁴⁴ It is referred to as *neck sign* but should not be confused with Brudzinski's sign, which is seen in patients with meningitis and is also referred to as neck sign.

Necklace of Casal sign refers to hyperpigmentation occurring on the neck owing to pellagra. The "necklace" can extend as a broad collar-like band around the entire circumference of the neck.⁴⁵ Sometimes the necklace extends anteriorly over the sternum to the level of the nipples and ends in a point or square. Cutaneous changes in pellagra appear primarily on sun-exposed areas on the neck, face, and dorsal parts of the hands, arms, and feet, but patients usually also have dermatitis elsewhere.

Nikolsky's sign was originally initially described in 1896 by Peter Vasiliyevich Nikolsky, a Russian dermatologist (1858–1940), in patients with pemphigus foliaceus. The original statement highlighted two methods in manifesting the sign: "by pulling the ruptured wall of the blister it is possible to take off the horny layer for a long distance on a seemingly healthy skin" and "the rubbing off of the epidermis between the bullae by slight friction without

breaking the surface of the skin and leaving moist surface of the granular layer.”⁴⁶ As recently reviewed by Grando and colleagues, two variants of Nikolsky’s sign exist.⁴ *Marginal sign* refers to the ability to split the epidermis of the skin beyond the preexisting erosion by pulling the remnant of a ruptured blister or rubbing at the periphery of existing lesions. On the other hand, *direct sign* refers to the ability to split the epidermis on skin areas distant from the lesions by lateral pressure with a finger. Both variants are observed in pemphigus vulgaris, pemphigus foliaceus, and staphylococcal scalded skin syndrome. In contrast to Asboe-Hansen sign, these are negative in autoimmune subepidermal blistering diseases (eg, bullous pemphigoid) and the bullous drug eruptions erythema multiforme, Stevens-Johnson syndrome, and toxic epidermal necrolysis.⁴ Furthermore, *pseudo-Nikolsky’s sign* refers to the ability to peel off the entire epidermis by lateral pressure (rubbing) only on the erythematous skin areas; it is present in the above-mentioned bullous drug eruptions but is negative in pemphigus and autoimmune subepidermal blistering diseases. Recently, Uzun and Durdu reported that Nikolsky’s sign is moderately sensitive but is highly specific in the diagnosis of pemphigus.⁴⁷

Nose sign is seen in several skin diseases, including airborne contact dermatitis, severe atopic dermatitis, and exfoliative dermatitis, and refers to sparing of the nose in the eruption distribution.⁴⁸

Oil drop sign is characterized by translucent, yellow-red discoloration and circular areas of onycholysis in the nail bed that fail to reach the free border and look like oil drops underneath the nail. Some authors make a distinction between oil drop sign and oil spot sign, which refers to yellowish or brown macules beneath the nail plate that extend distally to the hyponychium. Both findings can be seen in psoriasis.⁴⁹

Panda’s sign refers to the persistence of the nevus of Ota in the periorbital location following laser therapy, whereas other peripheral sites clear well.

Pastia’s sign or *Pastia’s lines* refer to pink or red transverse lines found in the antecubital fossae and axillary folds. The lines are produced from confluent petechiae and are seen in patients with the preeruptive stage of scarlet fever. The lines persist through the eruptive stage, remaining as pigmented lines after desquamation. Pastia’s sign is named after the Roman physician Constantin Chessec Pastia (1893–1926); it is also known as *Thomson’s sign*, after the British physician Frederick Holland Thomson (1867–1938).⁵⁰

Pathergy sign refers to the elicitation of new lesions or worsening of existing lesions by superficial trauma such as

skin testing, injections, pricks, insect bites, biopsies, and operations. This condition is seen in some patients with pyoderma gangrenosum or Behçet’s syndrome.⁵¹ A positive pathergy test, known as a neutrophilic vascular reaction, is performed by pricking the skin with oblique insertion of a 20-gauge or smaller needle and is read by a physician at 24 to 48 hours.

Raccoon sign is a useful feature indicative of basilar skull fracture. The condition is seen as periorbital ecchymosis from subconjunctival hemorrhage, which occurs secondary to blood dissecting from the disrupted skull cortex to the soft tissue of the periorbital region.⁵²

Romaña’s sign is named after Cecilio Romaña (1899–1983), an Argentinian researcher.⁵³ However, the credit for the recognition of this sign for its specificity in diagnosing Chagas’ disease belongs to Emanuel Dias (1908–1962) and Evandro Chagas (1905–1940). Romaña’s sign refers to the first clinical sign of sensitization response to the bite of the *Trypanosoma cruzi* insect and is seen in 80% of acute cases. Clinically, severe unilateral conjunctivitis and palpable, painless lid edema are seen. Inflammation of the tear gland and preauricular lymphadenopathy are associated with Romaña’s sign.

Rope sign refers to linear inflammatory indurations appearing like cords that extend from the lateral trunk to the axillae. This sign occurs in interstitial granulomatous dermatitis with arthritis.⁵⁴

Round fingerpad sign is an important early clinical feature seen in patients with scleroderma.⁵⁵ Disappearance of the peaked contour on the fingerpads and progression to a hemisphere-like finger contour is noted. This change is best detected by examining the ring fingers as the first two digits are often rounded in normal persons owing to manual activities.

Russell’s sign refers to the lacerations, abrasions, and callosities that are found on the dorsum of the hand overlying the metacarpophalangeal and interphalangeal joints. It is seen in patients with bulimia nervosa owing to repeated contact of the incisor teeth with the skin and during self-induced vomiting.⁵⁶ These patients also typically have associated dental enamel erosions and gingivitis from contact with corrosive gastric contents.

School chair sign has been used to denote the presentation of allergic contact dermatitis to nickel, when the rash occurs over the posterior thighs, corresponding to contact with a school chair.⁵⁷

Shawl sign is seen in patients with dermatomyositis and is characterized by confluent, symmetric, macular violaceous erythema on the posterior shoulders and neck, giving a distinctive shawl-like appearance.

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Slapped cheek sign is seen in children with fifth disease as confluent, erythematous, edematous plaques on the cheeks.⁵⁸ This manifestation is often the first skin change seen in patients with fifth disease. As the facial rash begins to fade over 1 to 4 days, erythematous macules and papules begin to appear on the trunk, neck, and extensor surfaces of the extremities.

Sternberg's thumb sign, or *thumb sign*, is a marker for arachnodactyly and is seen in patients with Marfan syndrome. A completely opposed thumb in the clenched hand projects beyond the ulnar border.⁵⁹ Another sign that can be used to test for arachnodactyly is the *Walker wrist sign*.

Tent sign is seen in patients with the benign appendageal tumor pilomatricoma. It usually presents as a solitary, asymptomatic, firm nodule. When the overlying skin is stretched, the lesion appears to be multifaceted and angulated, giving a "tent" appearance. The tent sign is due to the calcification occurring in the lesion.⁶⁰

Thumbprint sign refers to periumbilical purpura resembling multiple thumbprints. The condition is mainly seen in patients with disseminated strongyloidosis.⁶¹ It occurs when such patients receive respiratory assistance, which results in a transient rise in portal pressure, shunting portal blood through the periumbilical shunt. At this location, the larvae cause extravasation of red blood cells into the dermis, resulting in the characteristic petechiae and purpura.

Tin-tack sign, also known as carpet tack sign, is a useful clinical feature in diagnosing discoid lupus erythematosus.⁶² Hyperkeratotic scale extending into the follicular infundibulum creates keratotic spikes when viewed from the scale's undersurface, resembling a carpet tack. Other conditions in which tin-tack sign has been reported include cutaneous B-cell lymphoma,⁶³ seborrheic dermatitis,⁶⁴ lichen planus,⁶⁵ and pemphigus foliaceus.⁶⁶

Tripe palms sign, also referred to as acanthosis palmaris and pachydermatoglyphy, refers to the rugose thickening of the palmar surface of the hands, with accentuation of the normal dermatoglyphic ridges, thus resembling the ridging of the interior surface of a bovine foregut. It is strongly associated with internal malignancy, most commonly carcinoma of the stomach and lung.⁶⁷ Acanthosis nigricans may be associated with tripe palms.

Two different types of *Trousseau's sign* exist, referring to distinct clinical conditions. Trousseau's sign of visceral malignancy, also known as migratory thrombophlebitis, refers to the development of successive crops of tender nodules in affected blood vessels secondary to intravascular low-grade hypercoagulation.⁶⁸ Usually, the upper

extremities or the trunk is affected. The condition occurs predominantly with pancreatic cancer, as well as with stomach and lung cancer. Trousseau's sign of tetany is elicited by compressing the brachial artery in the upper arm with a tourniquet or blood pressure cuff for 3 minutes, resulting in carpal spasm, and is characterized by contraction of the fingers and hands into the "obstetrical position."⁶⁹

Ugly duckling sign refers to the observation that a nevus that does not resemble a patient's other nevi is more likely to represent a melanoma. This relates to the "ugly duckling" in Hans Christian Andersen's tale, which did not look like its siblings because it was not a duck but a swan. The sign was recently reviewed by Mascaro and colleagues.⁷⁰

V sign is seen in patients with dermatomyositis and refers to the erythema secondary to photosensitivity seen in the V area of the upper chest.

Walzel sign refers to livedo reticularis seen in association with acute and chronic pancreatitis.⁷¹ Several other signs may be seen in patients with pancreatitis, including Grey Turner's sign, Cullen's sign, and Trousseau's sign.

Winterbottom's sign was described by Thomas Winterbottom, an English physician (1765–1859). The sign refers to the occasionally visible enlargement of lymph nodes in the posterior cervical group, which is seen in the Gambian form of African trypanosomiasis. There are three stages of the infection, with Winterbottom's sign seen in the second stage that occurs 6 to 8 weeks into the disease. During this stage, patients present with systemic symptoms and also develop irregular, transient, erythematous macules or urticarial lesions, most commonly on the trunk.⁷²

Conclusion

A multitude of signs exist in dermatology, and an exhaustive list is difficult to prepare. Many signs are based on the morphology or physical characteristics of the lesions. The eponymous nature of some signs highlights the rich history of dermatology. Signs are objective findings that are important in eliciting diagnosis or in narrowing differential diagnosis. It is important to keep in mind that cutaneous signs are rarely pathognomonic and each is associated with inherent sensitivity and specificity. For instance, Battle's sign has a low sensitivity in patients with basilar skull fracture, but it is highly specific in that its presence is highly suggestive of the condition. Better appreciation and knowledge of cutaneous signs will enhance the care of patients with dermatologic manifestations.

References

1. Al Aboud K, Al Hawsawi K, Ramesh V, et al. Cutaneous signs. *Skinmed* 2003;2:104–7.
2. Solomon SS, Kerlan RM, King LE, et al. Pseudopseudohypoparathyroidism with fibrous dysplasia. *Arch Dermatol* 1975;111:90–3.
3. Asboe-Hansen G. Blister-spread induced by finger-pressure, a diagnostic sign in pemphigus. *J Invest Dermatol* 1960;34:5–9.
4. Grando SA, Grando AA, Glukhenky BT, et al. History and clinical significance of mechanical symptoms in blistering dermatoses: a reappraisal. *J Am Acad Dermatol* 2003;48:86–92.
5. Holubar K, Fatovic-Ferencic S. Papillary tip bleeding or the Auspitz phenomenon: a hero wrongly credited and a misnomer resolved. *J Am Acad Dermatol* 2003;48:263–4.
6. Bernhard JD. Auspitz sign is not sensitive or specific for psoriasis. *J Am Acad Dermatol* 1990;22(6 Pt 1):1079–81.
7. Dresner ML. Torsed appendage. Diagnosis and management: blue dot sign. *Urology* 1973;1:63–6.
8. Plantin P, Delaire P, Sassolas B, Guillet G. ‘Butterfly’ sign. *J Am Acad Dermatol* 1989;21(4 Pt 1):809.
9. Kimura T, Miyazawa H. The ‘butterfly’ sign in patients with atopic dermatitis: evidence for the role of scratching in the development of skin manifestations. *J Am Acad Dermatol* 1989;21(3 Pt 1):579–80.
10. Hurko O, Provost TT. Neurology and the skin. *J Neurol Neurosurg Psychiatry* 1999;66:417–30.
11. Denguezli M, Ben Nejma B, Nouira R, et al. [Iga linear bullous dermatosis in children. A series of 12 Tunisian patients]. *Ann Dermatol Venereol* 1994;121:888–92.
12. Merrill JA. Cullen’s sign; a historical review and report of histologic observations. *Obstet Gynecol* 1958;12:317–24.
13. Skrabbs CC. Darier sign: a historical note. *Arch Dermatol* 2002;138:1253–4.
14. Bettoli V, Pizzigoni S, Borghi A, Virgili A. Ofuji papulocystic erythroderma: a reappraisal of the deck-chair sign. *Dermatology* 2004;209:1–4.
15. Autier J, Buffet M, Pinquier L, et al. Cutaneous Waldenström’s macroglobulinemia with “deck-chair” sign treated with cyclophosphamide. *J Am Acad Dermatol* 2005;52(2 Suppl 1):45–7.
16. Meffert JJ, Peake MF, Wilde JL. ‘Dimpling’ is not unique to dermatofibromas. *Dermatology* 1997;195:384–6.
17. Manabe T, Inagaki Y, Nakagawa S, et al. Ripple pigmentation of the neck in atopic dermatitis. *Am J Dermatopathol* 1987;9:301–7.
18. Colver GB, Mortimer PS, Millard PR, et al. The ‘dirty neck’—a reticulate pigmentation in atopics. *Clin Exp Dermatol* 1987;12:1–4.
19. Humphreys F, Spencer J, McLaren K, Tidman MJ. An histological and ultrastructural study of the ‘dirty neck’ appearance in atopic eczema. *Clin Exp Dermatol* 1996;21:17–9.
20. Malakar S, Dhar S. The ‘doughnut sign’ revisited. *Dermatology* 1999;199:373–4.
21. Pavithran K. Acquired syphilis in a patient with late congenital syphilis. *Sex Transm Dis* 1987;14:119–21.
22. Rotstein E, Rotstein H. The ear-lobe sign: a helpful sign in facial contact dermatitis. *Australas J Dermatol* 1997;38:215–6.
23. Buno IJ, Morelli JG, Weston WL. The enamel paint sign in the dermatologic diagnosis of early-onset kwashiorkor. *Arch Dermatol* 1998;134:107–8.
24. Ihm CW, Han JH. Diagnostic value of exclamation mark hairs. *Dermatology* 1993;186:99–102.
25. Wheeland RG, Burgdorf WH, Humphrey GB. The flag sign of chemotherapy. *Cancer* 1983;51:1356–8.
26. Lesbre JP, Castier B, Tribouilloy C, et al. [Frank’s sign and coronary disease]. *Ann Cardiol Angiol (Paris)* 1987;36:37–41.
27. Davis TM, Balme M, Jackson D, et al. The diagonal ear lobe crease (Frank’s sign) is not associated with coronary artery disease or retinopathy in type 2 diabetes: the Fremantle Diabetes Study. *Aust N Z J Med* 2000;30:573–7.
28. Bem J, Bradley EL III. Subcutaneous manifestations of severe acute pancreatitis. *Pancreas* 1998;16:551–5.
29. Aggarwal K, Jain VK, Gupta S. Bilateral groove sign with penoscrotal elephantiasis. *Sex Transm Infect* 2002;78:458.
30. Drolet BA, Clowry L, Jr, McTigue MK, Esterly NB. The hair collar sign: marker for cranial dysraphism. *Pediatrics* 1995;96(2 Pt 1):309–13.
31. Dhar S, Kanwar AJ, Handa S. ‘Hanging curtain’ sign in pityriasis rosea. *Dermatology* 1995;190:252.
32. Neehar P, Benjamin B, Sahu A, et al. Heliotrope rash and ‘V’ sign in dermatomyositis. *J Assoc Physicians India* 2003;51:383.
33. Hoagland RJ. Infectious mononucleosis. *Prim Care* 1975;2:295–307.
34. Baran R, Kechijian P. Hutchinson’s sign: a reappraisal. *J Am Acad Dermatol* 1996;34:87–90.
35. Kawabata Y, Ohara K, Hino H, Tamaki K. Two kinds of Hutchinson’s sign, benign and malignant. *J Am Acad Dermatol* 2001;44:305–7.
36. Tomkinson A, Roblin DG, Brown MJ. Hutchinson’s sign and its importance in rhinology. *Rhinology* 1995;33:180–2.
37. Halevy S, Feuerman EJ. The sign of Leser-Trelat. A cutaneous marker for internal malignancy. *Int J Dermatol* 1985;24:359–61.
38. Yeh JS, Munn SE, Plunkett TA, et al. Coexistence of acanthosis nigricans and the sign of Leser-Trelat in a patient with gastric adenocarcinoma: a case report and literature review. *J Am Acad Dermatol* 2000;42(2 Pt 2):357–62.
39. Goldberg A. Leser-Trelat sign and large-cell carcinoma of the lung. *Am Fam Physician* 1995;51:1825, 1830.
40. Fanti PA, Metri M, Patrizi A. The sign of Leser-Trelat associated with malignant melanoma. *Cutis* 1989;44:39–41.
41. McCrary ML, Davis LS. Sign of Leser-Trelat and mycosis fungoides. *J Am Acad Dermatol* 1998;38:644.
42. Rampen HJ, Schwengle LE. The sign of Leser-Trelat: does it exist? *J Am Acad Dermatol* 1989;21:50–5.
43. Schwartz RA. Sign of Leser-Trelat. *J Am Acad Dermatol* 1996;35:88–95.
44. Weinstein CL, Miller MH, Kossard S, Littlejohn GO. The scleroderma neck sign. *J Rheumatol* 1989;16:1533–5.
45. Karthikeyan K, Thappa DM. Pellagra and skin. *Int J Dermatol* 2002;41:476–81.
46. Goodman H. Nikolsky sign; page from notable contributors to the knowledge of dermatology. *AMA Arch Derm Syphilol* 1953;68:334–5.
47. Uzun S, Durdu M. The specificity and sensitivity of Nikolskiy sign in the diagnosis of pemphigus. *J Am Acad Dermatol* 2006;54:411–5.
48. Kanwar AJ, Dhar S, Ghosh S. ‘Nose sign’ in dermatology. *Dermatology* 1993;187:278.

49. Kouskoukis CE, Scher RK, Ackerman AB. The "oil drop" sign of psoriatic nails. A clinical finding specific for psoriasis. *Am J Dermatopathol* 1983;5:259-62.
50. Altemeier WA III. A pediatrician's view. A brief history of group A beta hemolytic strep. *Pediatr Ann* 1998;27:264266-7.
51. Ergun T, Gurbuz O, Harvell J, et al. The histopathology of pathergy: a chronologic study of skin hyperreactivity in Behcet's disease. *Int J Dermatol* 1998;37:929-33.
52. Samii M, Tatagiba M. Skull base trauma: diagnosis and management. *Neurol Res* 2002;24:147-56.
53. Delaporte F. Romana's sign. *J Hist Biol* 1997;30:357-66.
54. Verneuil L, Dompormartin A, Comoz F, et al. Interstitial granulomatous dermatitis with cutaneous cords and arthritis: a disorder associated with autoantibodies. *J Am Acad Dermatol* 2001;45:286-91.
55. Mizutani H, Mizutani T, Okada H, et al. Round fingerpad sign: an early sign of scleroderma. *J Am Acad Dermatol* 1991;24:67-9.
56. Daluiski A, Rahbar B, Meals RA. Russell's sign. Subtle hand changes in patients with bulimia nervosa. *Clin Orthop Relat Res* 1997;343:107-9.
57. Samimi SS, Siegfried E, Belsito DV. A diagnostic pearl: the school chair sign. *Cutis* 2004;74:27-8.
58. Magro CM, Dawood MR, Crowson AN. The cutaneous manifestations of human parvovirus B19 infection. *Hum Pathol* 2000;31:488-97.
59. Fazekas A, Vigvary L. [The Sternberg screening test for Marfan's disease]. *Orv Hetil* 1969;110:2872-4.
60. Graham JL, Merwin CF. The tent sign of pilomatricoma. *Cutis* 1978;22:577-80.
61. Bank DE, Grossman ME, Kohn SR, Rabinowitz AD. The thumbprint sign: rapid diagnosis of disseminated strongyloidiasis. *J Am Acad Dermatol* 1990;23(2 Pt 1):324-6.
62. Pramatarov KD. Chronic cutaneous lupus erythematosus—clinical spectrum. *Clin Dermatol* 2004;22:113-20.
63. Baba M, Uzun S, Acar MA, et al. 'Tin-tack' sign in a patient with cutaneous B-cell lymphoma. *J Eur Acad Dermatol Venereol* 2001;15:360-1.
64. Cowley NC, Lawrence CM. 'Tin-tack' sign in seborrheic dermatitis. *Br J Dermatol* 1991;124:393-4.
65. Cox NH, Tapson JS, Farr PM. Lichen planus associated with captopril: a further disorder demonstrating the 'tin-tack' sign. *Br J Dermatol* 1989;120:319-21.
66. Paramsothy Y, Lawrence CM. 'Tin-tack' sign in localized pemphigus foliaceus. *Br J Dermatol* 1987;116:127-9.
67. Requena L, Aguilar A, Renedo G, et al. Tripe palms: a cutaneous marker of internal malignancy. *J Dermatol* 1995;22:492-5.
68. Kurzrock R, Cohen PR. Cutaneous paraneoplastic syndromes in solid tumors. *Am J Med* 1995;99:662-71.
69. Meininger ME, Kendler JS. Images in clinical medicine. Trousseau's sign. *N Engl J Med* 2000;343:1855.
70. Mascaro JM, Jr, Mascaro JM. The dermatologist's position concerning nevi: a vision ranging from "the ugly duckling" to "little red riding hood." *Arch Dermatol* 1998;134:1484-5.
71. Gould JW, Helms SE, Schulz SM, Stevens SR. Relapsing livedo reticularis in the setting of chronic pancreatitis. *J Am Acad Dermatol* 1998;39:1035-6.
72. Mackey SL, Wagner KF. Dermatologic manifestations of parasitic diseases. *Infect Dis Clin North Am* 1994;8:713-43.

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