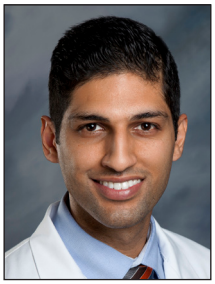
Skin Signs of Internal Malignancy

By Amandeep Sandhu, MD, Caroline Perez, MD, and Sharon E. Jacob, MD

Dermatologic manifestation or syndrome	Description	Associated malignancy (or malignancies)
Acanthosis nigricans (Malignant acanthosis nigricans)	Hyperpigmented velvety plaques, commonly of the neck, axilla, and groin.	GI adenocarcinoma
Acquired hypertrichosis lanuginosa	Growth of lanugo hairs. Distribution can be specific to the face or generalized. Hairs can become coarser with time.	Various internal malignancies, most often lung, colon or breast carcinoma.
Acquired ichthyosis	Clinically similar to ichthyosis vulgaris, with symmetrical fine, rough scale, typically more pronounced on lower extremities.	Hodgkin lymphoma, non-Hodgkin lymphoma, multiple myeloma, mycosis fungoides, carcinomatosis.
Adenopathy and extensive skin patch overlying a plamacytoma (AESOP) syndrome	Red-brown, violaceous patch or plaque. Biopsy: dermal vascular hyperplasia with increased surrounding dermal mucin.	Plasmacytoma
Alopecia neoplastica	Solitary or multiple patches or plaques of cicatricial hair loss OR non-scarring resembling alopecia areata.	Breast most common, also GI, lung, renal, gastric, and pancreatic.
Bazex syndrome (Acrokeratosis paraneoplastica)	Violaceous erythema and scaling of the fingers, toes, nose and aural helices. May see nail dystrophy or palmoplantar keratoderma.	Primarily squamous cell carcinoma of upper respiratory or GI tract.
Bullous pemphigoid	Tense, fluid-filled, subepidermal bullae.	Renal cell carcinoma, lung carcinoma.
Carcinoid syndrome	Flushing and erythema of head and neck. In later disease, may see sclerodermoid changes and pellagra-like dermatitis.	GI with liver metastases. Bronchial carcinoid tumors.
Carcinoma en cuirasse/ sclerodermoid	Means "encasement of armor;" indurated, fibrotic, scar-like plaques to the trunk, sometimes with a peau d'orange appearance; due to malignancy infiltrating collagen in the skin.	Breast cancer most common, also stomach, kidneys, or lungs.
Carcinoma erysipeloides	Sharply demarcated red patch due to local spread of primary cancer that blocks lymphatic blood vessels in adjacent skin.	Breast and lung cancer.
Cryoglobulinemia	Variable; may include retiform purpura, ischemic necrosis, acral cyanosis, livedo reticularis, and Raynaud's.	Multiple myeloma, other hematologic malignancy.
Cushing syndrome	Rounded facies, "buffalo hump," global skin atrophy, striae, prolonged wound healing.	Oat cell carcinoma
Dermatomyositis	Heliotrope rash, Gottron's papules, photodistributed poikiloderma (shawl and holster signs), nailfold telangiectasias.	Ovarian, breast cancer in women; gastric cancer, lymphoma in men.
Eosinophilic fasciitis	Induration of the skin and subcutaneous tissue with dry riverbed sign following the course of underlying vessels.	Polycythemia vera, metastatic colorectal carcinoma, and multiple myeloma.
Epidermolysis bullosa acquisita	Classic: tense vesicles, bullae, erosions on trauma prone areas, heals with scarring; also generalized and mucosal variants.	Multiple myeloma, lymphoma.
Erythema annulare centrifugum	Annular or polycyclic erythematous plaques with trailing scale.	Lymphoma, leukemia, malignant histiocytosis.
Erythema gyratum repens	"Wood grain" concentric figurate erythema, mild scaling; rapid migration; often severe pruritus.	Lung most commonly, many other malignancies.
Generalized hyperpigmentation	Hyperpigmentation due to ectopic ACTH production.	Most commonly small cell lung cancer.
Generalized pruritus	Diffuse pruritus, not preceded by rash.	Lymphoma, leukemia, internal organ cancer.
Leser-Trélat sign	Acute onset of multiple pruritic seborrheic keratoses. Commonly occurs with malignant acanthosis nigricans.	General internal malignancy, GI adenocarcinoma most common.



Aman Sandhu, MD, is PG-4 and chief dermatology resident at Loma Linda University Medical Center

Caroline Perez, MD, is a PGY-1 at University of Missouri

Sharon Jacob, MD, is associate professor of dermatology at Loma Linda University Medical Center

Skin Signs of Internal Malignancy (cont.)

By Amandeep Sandhu, MD, Caroline Perez, MD, and Sharon E. Jacob, MD

Dermatologic manifestation or syndrome	Description	Associated malignancy (or malignancies)
Migratory thrombophlebitis	Painful indurated and erythematous "cords," typically linear or branching in configuration.	Pancreatic cancer
Necrolytic migratory erythema (Glucagonoma syndrome)	Erythematous, eroded, crusted plaques, commonly in groin, anogenital, buttocks, lower legs, or perioral locations. May also see angular cheilitis and glossitis.	Glucagonoma (pancreatic α-cell tumor) most common; may also see with inflammatory bowel disease, diabetes, small cell lung cancer, or hepatocellular carcinoma.
Palmoplantar keratoderma/ keratosis palmaris et plantaris / tylosis	Excessive formation of keratin on the palms and soles, characterized by thickened plaques of scale.	Keratoderma climactericum, arsenical keratoses, porokeratosis plantaris discreta, porokeratotic eccrine ostial and dermal duct nevus, glucan-induced keratoderma in acquired immunodeficiency syndrome (AIDS)
Paraneoplastic pemphigus	Severe erosive stomatitis, may involve entire oropharynx; cutaneous lesions variable, includes erythematous macules, flaccid and tense bullae, erythema multiforme-like, lichenoid, and/or pemphigus-like erosions.	Non-Hodgkin's lymphoma (most common in adults), Castleman's (most common in kids, benign), chronic lymphocytic leukemia, Waldenstrom macroglobulinemia, sarcoma, thymoma (benign).
Pityriasis rotunda	Round, discrete, scaly patches; typically seen in darker-skinned individuals.	Lymphoma, leukemia, esophageal or stomach carcinoma, hepatocellular carcinoma.
Plane xanthoma	Yellow-tan to orange macules or rarely thin plaques; palmar crease involvement characteristic of familial dysbetalipoproteinemia III; may also spread and become generalized.	Often myeloma and biliary cirrhosis (non-malig); also monoclonal gammopathy, lymphoma, leukemia, adult T-cell lymphoma/leukemia due to human lymphotropic virus (HTLV)-1; non-malignant: high-density lipoprotein (HDL) deficiency, acquired C1 esterase inhibitor deficiency.
Polyneuropathy, organomegaly, endocrinopathy, M-protein, skin changes (POEMS)	Associated skin findings include glomeruloid hemangioma, cherry angiomas, hyperpigmentation, hypertrichosis, sclerodermatous thickening, hyperhidrosis, digital clubbing, plethora, acrocyanosis, and leukonychia.	Osteosclerotic myeloma, Castleman's, plasmacytoma.
Pyoderma Gangrenosum	Classically an inflammatory pustule with surrounding halo that enlarges and ulcerates with sharply marginated, overhanging blue to purple borders.	Leukemia, IgA gammopathy, polycycthemia vera; non-malignant: inflammatory bowel disease, HIV, PAPA syndrome (Pyogenic Arthritis, Pyoderma Gangrenosum, Acne).
Sister Mary Joseph nodule	Umbilical metastatic nodule, color/appearance varies.	Most common GI (stomach, colon, pancreas); also gynecological (ovary, uterus).
Sweet's syndrome (Acute febrile neutrophilic dermatosis)	Well-defined, tender/burning/painful, erythematous to violaceous, indurated to edematous plaques or nodules; non-pruritic; face, neck, extremities most common.	AML most common, also other hematologic malignancies and GI, GU, and breast cancers.
Systemic amyloidosis	Petechiae, purpura ("pinch purpura"), ecchymoses;" also waxy, firm, flat-topped papules, nodules, and plaques; glossitis with macroglossia.	Multiple myeloma
Tripe palms (Acanthosis palmaris)	Ridged, velvety lesions on palms.	Lung (palms only), gastric (palms + AN) .

References

1. James WD, Berger TG, Elston DM. Genodermatoses and Congenital Anomalies. In: James WD, Berger TG, Elston DM. Andrews' Disease of the Skin. 11th ed. Atlanta, GA: Elsevier; 2011.
2. James WD, Berger TG, Elston DM. Dermal and Subcutaneous Tumors. In: James WD, Berger TG, Elston DM. Andrews' Disease of the Skin. 11th ed. Atlanta, GA: Elsevier; 2011.
3. Schwarzenberger K, Callen JP. Dermatologic Manifestations in Patients with Systemic Disease. In: Bolognia JL, Jorizzo JL, Schaffer JV. Dermatology. 3rd ed. Atlanta, GA: Elsevier; 2012.