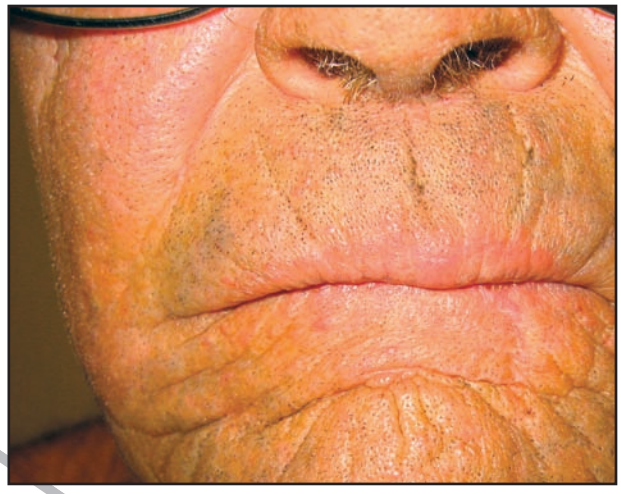
This month–9 cases:

Case 1

A Wrinkle Problem

A 55-year-old male smoker presents with deep furrows around his mouth. He is wondering why he has developed them since no one else in his family has them.



What do you think?

a. Anetoderma
b. Cutis laxa
c. Rhytides
d. Scleroderma
e. Leonine facies

Answer

Perioral rhytides or wrinkles **(answer c)** are common in longstanding smokers. Smokers have premature and increased facial wrinkling compared to non-smokers and women are more susceptible than men. In many smokers, the threat of facial wrinkling is a greater motivator to quit than the threat of lung cancer or other life-threatening smoking-related diseases. Since not all smokers have a smoker's face, genetic factors may be involved.

Sun exposure also plays a significant role in the development of wrinkles. Exposure to UVA or UVB rays from sunlight accounts for 90% of the symptoms of premature skin aging, including wrinkles. Despite all the advertising for cosmetic products and procedures, the most important skin-care product available to prevent wrinkles is sunscreen. Both UVA and UVB radiation cause wrinkles by breaking down collagen, creating free radicals and inhibiting the natural repair mechanisms of the skin.

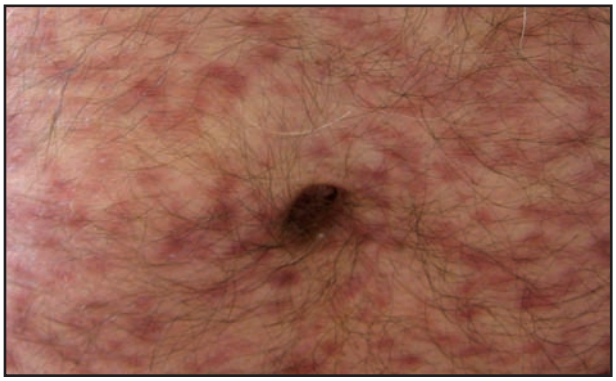
The presence of such deep wrinkling should be a reminder to educate patients about sun awareness and protection and to discuss the many benefits and options for quitting smoking.

Benjamin Barankin, MD, FRCPC, is a Dermatologist in Toronto, Ontario.

Case 2

A Wheally Itchy Rash

A 50-year-old patient presents to the dermatology clinic for his regular follow-up. Since his thirties, this patient has had red to brown, maculopapular lesions, primarily on his trunk and proximal extremities. These lesions become very itchy and swell if rubbed or scratched. Furthermore, he finds that when he drinks alcohol, the lesions get worse and he becomes flushed and itchy all over.



What is the diagnosis?

a. Cutaneous lymphoma
b. Urticaria pigmentosa
c. Histiocytosis
d. Carcinoid syndrome

Answer

This patient has a form of cutaneous mastocytosis called *urticaria pigmentosa* **(answer b)**. Mastocytosis is a spectrum of disorders characterized by abnormal growth and accumulation of mast cells in various organs of the body, with the skin being the most common.

Systemic symptoms, including flushing, vomiting and syncope, are caused by degranulation of mast cells and the release of several active substances. However, most patients with mastocytosis have only skin involvement and most of these have no systemic symptoms.

Urticaria pigmentosa, the most common subtype of cutaneous mastocytosis, typically presents with red to brown macules, papules and plaques in a generalized, symmetric distribution. Lesions may form clusters with a cobblestone appearance. When scratched or rubbed, lesions will wheal and itch, a phenomenon named Darier's sign.

Urticaria pigmentosa often presents in childhood within the first two years of life, but it can also appear in adults with the average age of onset in one's thirties. Childhood disease tends to resolve by adolescence, while adult disease tends to persist and is more often associated with systemic disease, most often of the bone marrow.

Lesions and systemic symptoms are exacerbated by various substances that cause mast cell degranulation namely:

- alcohol,
- non-steroidal anti-inflammatory drugs,
- codeine and
- morphine.

In addition to avoidance of these triggers, medications used to manage this disease include:

- H1 and H2 receptor antagonists,
- ketotifen and
- a mast cell stabilizer known as cromolyn sodium.

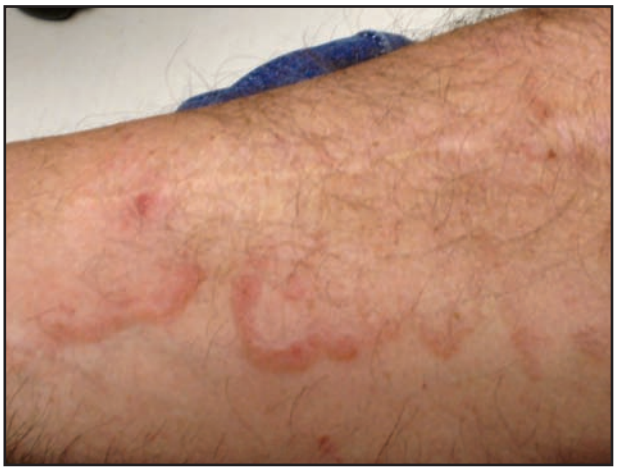
Topical and intralesional steroids can be used for localized skin disease and psoralen and UVA light therapy is the treatment of choice for extensive cutaneous disease.

Monika Winnicki, MD, is a first-year Dermatology Resident, Université de Montréal, Montreal, Quebec.

Case 3

A Curvy Rash

For the past 10 years, this 60-year-old male has had an arcuate rash on his shoulders and forearms.



The lesions are classic for?

a. Sarcoidosis
b. Granuloma annulare
c. Subacute lupus
d. Tinea corporis
e. Mycosis fungoides

Answer

Granuloma annulare **(answer b)** is a relatively common disorder, more often seen in females with a ratio of two to one under the age of 30. While it has been linked to injury of the skin and to various systemic disorders, there is no consistent relationship. The cause is unknown.

The majority of lesions occur on the hands and forearms. They may also occur on:

- the legs,
- the feet,
- the upper extremities and
- least often on the trunk.

Granuloma annulare generally runs a course of flares and regression.

Lesions present as somewhat boggy papules, which expand to form arcuate to annular lesions, with varying intensities of colour. The lesions themselves are asymptomatic.

Treatment is unnecessary as it has a self-limited course. If desired, regression can be promoted by:

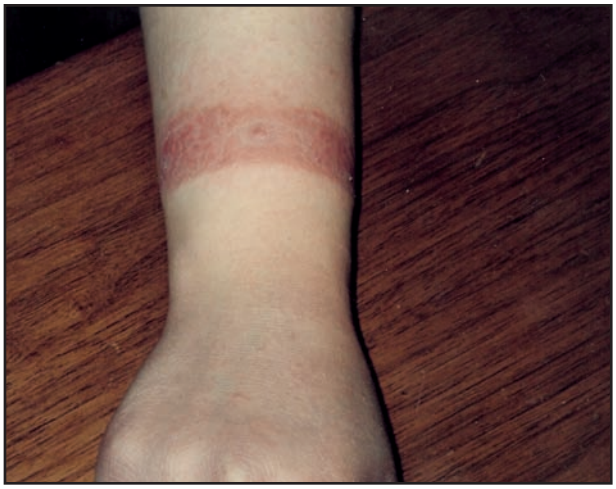
- the light application of liquid nitrogen to the affected areas,
- the use of topical corticosteroids or
- intralesional triamcinalone.

Stanley Wine, MD, FRCPC, is a Dermatologist, Toronto, Ontario.

Case 4

A Scaly Wrist

This 13-year-old boy developed a well demarcated eczematous scaly patch on his left wrist. The lesion is itchy.



What is your diagnosis?

a. Contact dermatitis
b. Psoriasis
c. Seborrheic dermatitis
d. Tinea corporis

Answer

Contact dermatitis **(answer a)** is an inflammatory condition in the skin triggered by direct contact with an environmental agent. It can be irritant or allergic in nature.

Irritant contact dermatitis accounts for approximately 80% of all cases of contact dermatitis. It results from a local cytotoxic effect of a chemical or physical agent, such as:

- saliva,
- soap,
- detergent and
- citrus juice.

Allergic contact dermatitis is a T-lymphocyte mediated delayed, hypersensitivity reaction to an antigen that has come in contact with the skin. Occasionally, the allergen must be photoactivated to cause a reaction, such as phytophotodermatitis (this is typically an allergic contact reaction to limes). The initial reaction usually occurs seven days to 14 days after sensitization. Re-exposure to the same antigen provokes a more rapid and brisk response. Nickel and poison ivy are well known examples of allergic contact dermatitis.

In this case, the allergic contact dermatitis is caused by an adhesive tape. Rubber and colophony are the ingredients responsible. Allergic contact dermatitis can be confirmed by a positive patch test to the offending allergen.

Treatment consists of the elimination of the offending allergen and the use of a topical corticosteroid.

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Lane M. Robson, MD, FRCPC is the Medical Director of The Children's Clinic, Calgary, Alberta.

Tom Woo, MD, FRCPC is a Dermatologist, University of Calgary, Calgary, Alberta.

Case 5

A Stubborn Spot

This 38-year-old woman has had a lesion on the pretibial area for 13 years. The lesion is asymptomatic. She herself is healthy, but has a strong family history of diabetes.

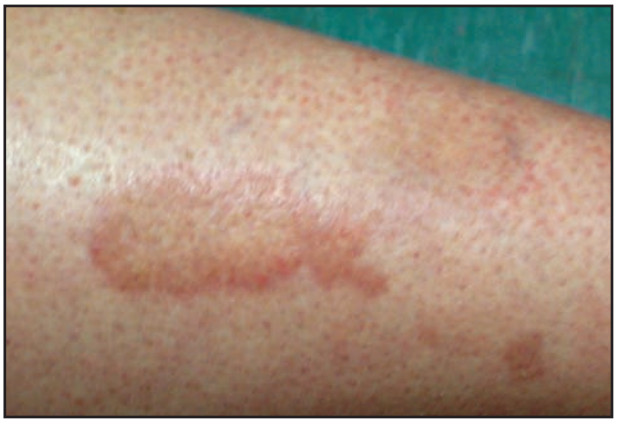
What does she have?

a. Erythema nodosum
b. Diabetic dermopathy
c. Sarcoidosis
d. Necrobiosis lipoidica diabeticorum
e. Granuloma annulare

Answer

Necrobiosis Lipoidica Diabeticorum (NLD) **(answer d)**, is three times more common in females than males. While many individuals who suffer from NLD have a family history of diabetes, NLD is rarely found in diabetics. When it does occur in diabetics, there is a higher rate of complication. The cause is unknown.

Typically NLD begins as yellow-brown papules, which evolve into atrophic plaques, surrounded by a raised violaceous border. It is almost always found in the pretibial areas. They may be single or multiple.



Following trauma, the centre may occasionally ulcerate.

Various treatments have been tried, the best of which are potent topical corticosteroids or intralesional triamcinolone into the advancing borders.

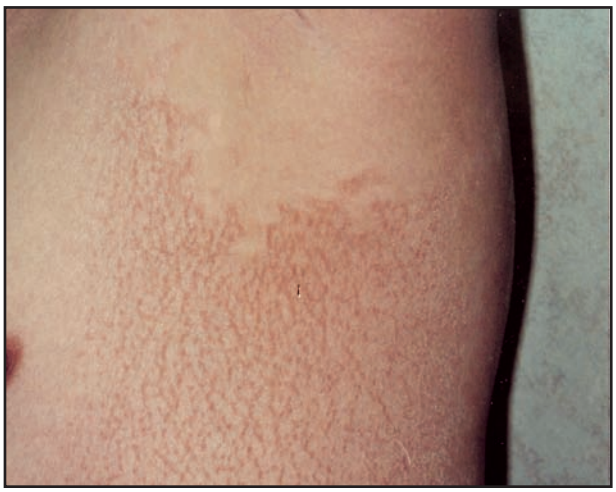
In some instances, spontaneous regression will occur.

Stanley Wine, MD, FRCPC, is a Dermatologist, Toronto, Ontario.

Case 6

A Lacy Red Rash

This 14-year-old boy developed a lacy red rash on the lateral aspect of the left side of his chest. Four months ago, he sustained fractures of the left fifth and sixth ribs during a motor vehicle accident. To help alleviate the pain, he regularly applies a hot water bag to his left lateral chest.



What is your diagnosis?

a. Cutis marmorata
b. Erythema ab igne
c. Harlequin phenomenon
d. Ataxia telangiectasia

Answer

Erythema ab igne **(answer b)** is characterized by a localized area of reticulated erythema and is due to chronic exposure to heat, that is below the threshold for a thermal burn. The shape and size of the rash corresponds to that of the heat source. The lesion is asymptomatic and transient.

Cutis marmorata is characterized by a transient mottled appearance of the skin in response to cold temperature. The condition is common in neonates. Persistent and pronounced cutis marmorata occurs in people with:

- hypothyroidism,
- Down syndrome and
- Cornelia de Lange syndrome.

Harlequin phenomenon occurs mainly in the neonatal period and results from an imbalance in the vascular autonomic regulatory mechanism. When the infant is placed on his or her side, the upper half of the body appears pale, while the lower body is deep red.

Ataxia telangiectasia is characterized by:

- oculocutaneous telangiectasia,
- cerebellar ataxia,
- chronic sinopulmonary disease and
- immunodeficiency.

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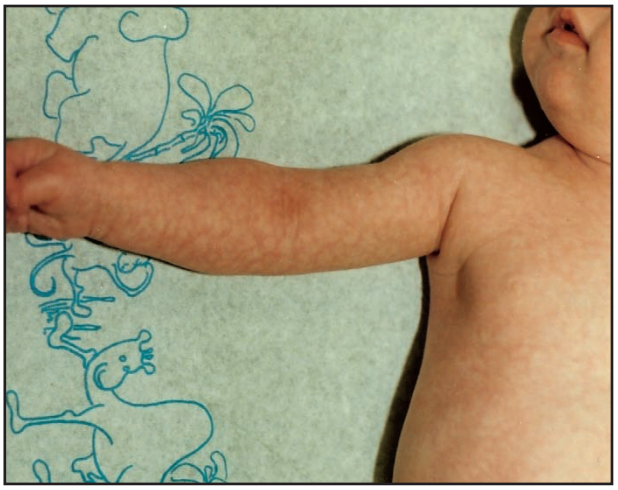
Case 7

"What's wrong with my baby's skin?"

A three-week-old infant was noted to have mottled skin on his limbs and trunk. The mottling was reddish and reticular-patterned. It became more intense after exposure to cold temperature and it disappeared on warming. The mottling developed at two weeks of age and persisted for two months.



What is your diagnosis?

a. Livedo reticularis
b. Cutis marmorata
c. Livedo racemosa
d. Harlequin color change

Answer

Cutis marmorata **(answer b)** is characterized by a symmetrical, reticular and reddish mottling of the skin after exposure to cold temperature. The evanescent, lacy network of small blood vessels is due to an exaggerated vasomotor response to cold temperatures that produces vasospasm, with subsequent hypoxia and vasodilation of venules and capillaries. The mottling disappears when the skin is warmed. In most children, the tendency to mottle resolves by six months to 12 months.

Cutis marmorata is more common in children with:

- Menkes disease,
- familial dysautonomia,
- hypothyroidism,
- Down syndrome,
- Trisomy 18 and
- Cornelia de Lange syndrome.

Livedo reticularis presents with a similar clinical picture to cutis marmorata but unlike cutis marmorata, the mottling does not disappear when the skin is warmed.

The mottling in livedo racemosa consists of irregular, broken circular segments and also does not disappear when the skin is warmed.

Harlequin color change is due to an imbalance of the autonomic vascular regulatory mechanism. When the infant is placed on his or her side, the body is bisected into a deep red lower half and a paler upper half.

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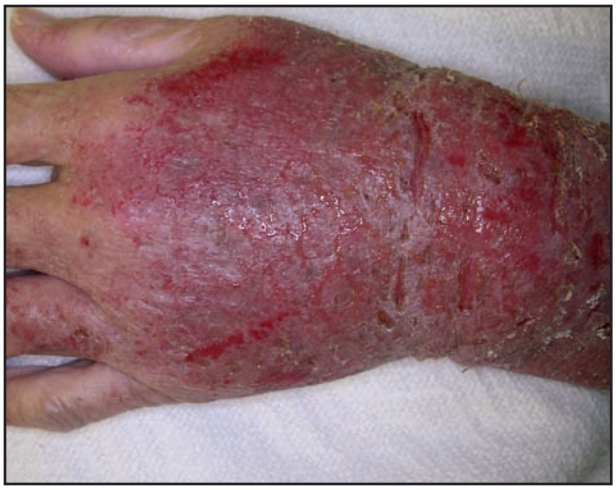
Case 8

"My skin is weeping!"

This 70-year-old female presents to the ER with a three day history of an erythematous, painful, itchy and blistering rash on her arms, face and upper back. She has a long history of dry and pruritic skin.



What is your diagnosis?

a. Pustular psoriasis
b. Drug reaction
c. Allergic contact dermatitis
d. Sezary syndrome
e. Sunburn

Answer

Acute *allergic contact dermatitis* **(answer c)** presents acutely as papules, oozing vesicles and crusting lesions on an erythematous base. Chronic cases appear as lichenification, scaling and fissuring.

Allergic contact dermatitis is a type IV T-cell-mediated sensitivity to topically applied agents. It requires prior exposure (sensitization) to the antigen. Common allergens include:

- Poison ivy/poison oak
- Nickel
- Cobalt
- Rubber-derived compounds
- Cosmetic preservatives (*i.e.,* formaldehyde, quaternium-15)
- Fragrance
- Topical antibiotics (*i.e.,* neomycin, bacitracin)
- Topical anaesthetics (*i.e.,* benzocaine)

Diagnosis is established on history and distribution of the lesions. This patient had applied an over-the-counter anti-itch medication containing benzocaine to her chronically pruritic skin. If the offending agent is not identified on history, patch-testing may be helpful, especially in chronic cases.

Treatment options include:

- avoidance of the allergen,
- topical corticosteroids and
- in severe cases systemic steroids.

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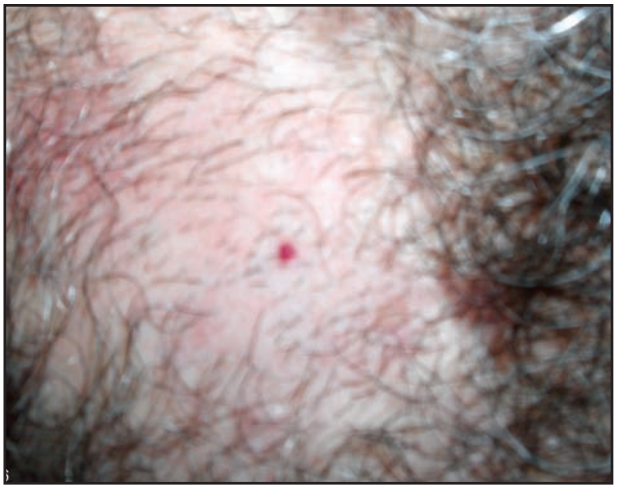
Rose Yeung, BSc, is a Medical Student, University of Alberta, Edmonton, Alberta.

Case 9

"Doc... is this spot dangerous?"

A 46-year-old man presents to an ED because his wife is concerned about the vascular papule on the right side of his chest. He was not very concerned himself, as the lesion has been there for the last few years and did not show any recent changes.



What do you think?

a. Basal cell carcinoma
b. Nodular melanoma
c. Irritated seborrheic keratosis
d. Cherry angioma
e. Dermatofibroma

Answer

Cherry angioma **(answer d)** also known as Campell de Morgans spots, are vascular growths that affect almost every adult over the age of 40. In one study of adults aged 30 years to 39 years of age, 90% of the men and 65% of the women had at least one cherry angioma.

The diagnosis of cherry angioma is clinical. A key feature is that the red color disappears with direct pressure applied under a glass microscope slide or by pulling taut the surrounding skin.

Treatment of cherry angioma relies on the removal of the lesions. The lesions are easily removed by snipping with an iris scissor followed by light electrodesiccation of the base. Cherry angiomas do not disappear on their own. Generally, a few form every year or so.

Dr. Kubba graduated from the University of Baghdad, where he initially trained as a Trauma Surgeon. He moved to Britain, where he received his FRCS and worked as an ER Physician before specializing in Family Medicine. He is currently a Family Practitioner, Fort McMurray, Alberta.