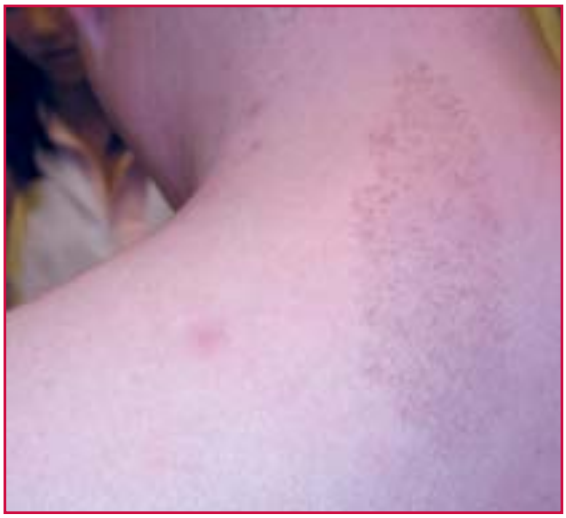
## Case 1

# *"XXX"*

A 14 year-old boy presents with a large well-circumscribed tan patch with small brown macules scattered within it.



### *What is your diagnosis?*

a. Nevus spilus
b. Solar lentigo
c. Café-au-lait macule
d. Becker nevus
e. Nevus sebaceous

### *Answer*

This teenaged boy has Nevus spilus (**answer a**). Nevus spilus is a light brown pigmented patch with speckled smaller and darker colored macules most commonly occurring on the trunk and legs. Some believe that Nevus spilus is a subtype of Congenital Melanocytic Nevus. Nevus spilus is found in 1-2% of children. It is a clinical diagnosis.

Treatment is not necessary as the risk of melanoma remains small. Watchful waiting and observation are preferred.

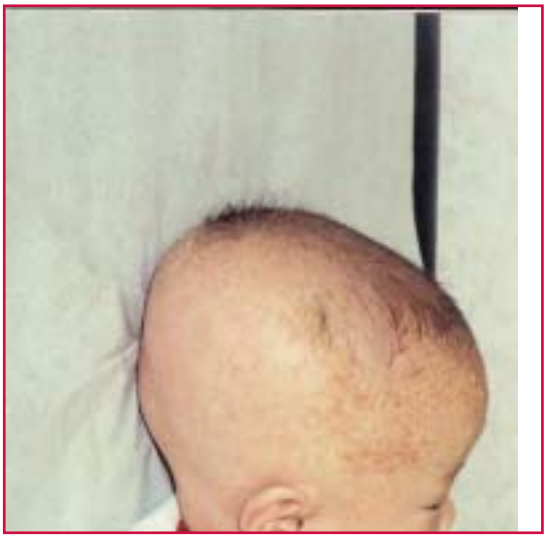
Any evidence of new irregular pigmentation or development of a papule or nodule warrants a biopsy. Surgical excision is the definitive way to remove the lesion, and lasers have been tried with modest benefit.

Benjamin Barankin, MD, is a Senior Dermatology Resident, University of Alberta, Edmonton, Alberta.

## Case 2

# What's on my head?

This infant presents with a greasy, scaly lesion on the forehead and scalp. There is no history of diarrhea or failure to thrive. The infant does not appear to be in discomfort.



### What is it?

a. Atopic dermatitis
b. Infantile seborrheic dermatitis
c. Psoriasis
d. Leiner's disease

### Answer

Infantile seborrheic dermatitis (**answer b**) usually manifests with erythema on the scalp, forehead, and retro-auricular areas. The erythema is typically covered with greasy, yellow scale. The condition is most common during the first few months of life. Both sexes are equally affected.

Although the exact etiology is not known, Pityrosporum ovale (Malassezia furfur) has been implicated in infantile seborrheic dermatitis because the organism has been isolated from the skin of affected patients at a higher frequency than controls.

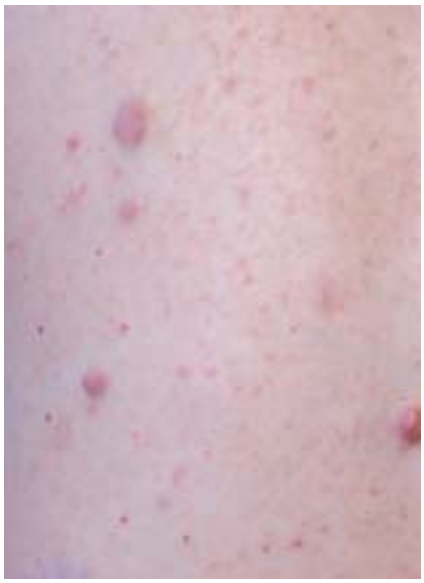
Infantile seborrheic dermatitis usually resolves spontaneously over a period of several weeks to months. but when severe, treatment with an antiseborrheic shampoo (selenium sulfide, salicylic acid, tar) and low-potency topical corticosteroid will hasten resolution.

Alexander K.C. Leung, MBBS, FRCPC, FRCP (UK & Irel), is a Clinical Associate Professor of Pediatrics, the University of Calgary, Calgary,

## Case 3

# "XXXX"

A 23 year-old male presents with multiple soft papules on his trunk and arms. He also has several large brown patches on his trunk.



### What is the likely diagnosis?

a. McCune-Albright syndrome
b. Neurofibromatosis
c. Intradermal nevi
d. Tuberous sclerosis
e. Noonan syndrome

### Answer

Neurofibromatosis (**answer b**) is an autosomal dominant syndrome characterized by multiple neurofibromas, café-au-lait macules, and axillary and, or, inguinal freckling. Less commonly, plexiform neurofibromas, skin hyperpigmentation, sacral hypertrichosis, and giant pigmented hairy nevi are observed.

Lisch nodules (iris hamartomas) are a specific sign of this syndrome. Various bone and endocrine abnormalities have been reported, as well as neurologic sequelae such as mental retardations, epilepsy, and intracranial malignancies.

The diagnosis of neurofibromatosis is based on a constellation of findings. These diagnostic criteria are readily available. Treatment of neurofibromas consists of excision. Deaths have been reported from intracranial meningiomas and gliomas, peripheral nerve sarcomas, and other associated malignancies.

Benjamin Barankin, MD, is a Senior Dermatology Resident, University of Alberta, Edmonton, Alberta.

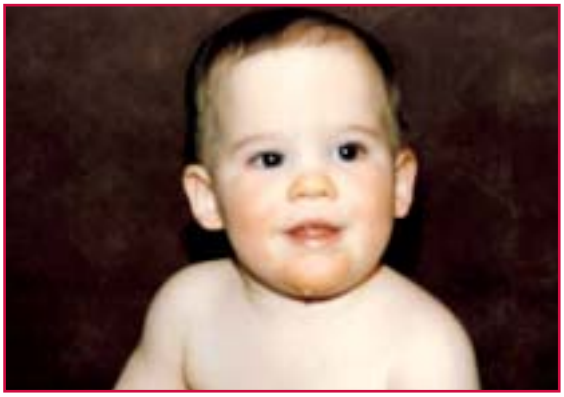
## Case 4

## Case 5

# "XXX"

An infant with yellow skin and white sclerae

A 9-month-old girl was assessed because of yellow discoloration on her cheeks, palms, and soles. Six weeks prior to developing the abnormal coloration she had been exposed to an adult with hepatitis A. Her sclerae were white and her examination was otherwise unremarkable.



## What can it be?

a. Hepatitis A
b. Carotenemia
c. Lycopenemia
d. Choledochal cyst

## Answer

Carotenemia (**answer b**) is a clinical condition characterized by yellow pigmentation of the skin and increased carotene levels in the blood. Carotenemia usually develops subsequent to prolonged and excessive consumption of carotene-rich foods such as carrots, squash, and sweet potatoes. Rarely, the condition is associated with diabetes mellitus, hypothyroidism, Simmond's disease, or anorexia nervosa.

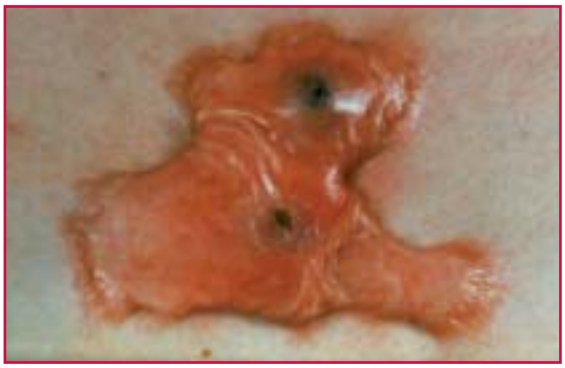
Carotenemia can be confused with jaundice. In jaundice the pigmentation is diffuse, the sclerae are commonly the first place to be affected, and the yellow color is more obvious in natural light. Constitutional symptoms such as malaise, loss of appetite, itching, and right upper quadrant pain might be present depending on the cause of the jaundice. Conversely, carotenemia never affects the sclerae, the pigmentation is typically localized to the palms, soles, and nasolabial folds, the color is more pronounced under artificial light, and constitutional symptoms are absent. Lycopenemia can cause an orange or reddish discoloration of the skin and is due to excessive consumption of lycopene-rich foods such as tomatoes and beets.

.Alexander K.C. Leung, MBBS, FRCPC, FRCP (UK & Irel), is a Clinical Associate Professor of Paediatrics, the University of Calgary, Calgary, Alberta; Wm. Lane M. Robson, MD, FRCPC is the Medical Director of The Childrens' Clinic in Calgary, Alberta.

## Case 6

# *"Doc, what's on my back?"*

A 22-year-old female presents with an irregular, erythematous lesion on her back. On palpation the lesion is firm. The patient complains that it is painful and pruritic.



### *What is the likely diagnosis?*

a. Neurofibroma
b. Keloid scarring
c. Granuloma annulare
d. Haemangioma
e. Dermatofibrosarcoma protuberans

### *Answer*

This patient has *keloid scarring* (**answer b**). A biopsy may be necessary to distinguish keloid scarring from other conditions, such as dermatofibrosarcoma protuberans (a unique fibrohistiocytic tumour).

Prevention is an important aspect of treatment. Closing wounds with minimal tension and inflammation is critical, as well as informing patients who are prone to keloids to avoid unnecessary cosmetic surgery.

Intralesional corticosteroids (triamcinolone acetonide, 10 mg to 40 mg/ml) administered intralesionally at four- to six-week intervals is the treatment of choice.

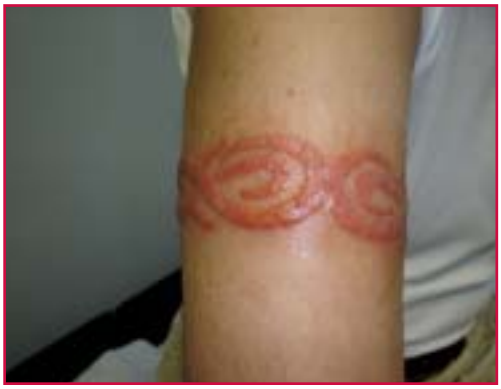
Other options include occlusive dressings, compression, radiation therapy and cryotherapy. Excision is rarely useful as keloids tend to recur.

John Kraft, BSc, is a fourth-year Medical Student, University of Toronto; Carrie Lynde, BSc, is a first-year Medical Student, University of Toronto; and Charles Lynde, MD, FRCP(C), is a Dermatologist, Toronto, Ontario.

## Case 7

# Tattoo Trouble!

While in the Dominican Republic, this 30-year-old male had a non-permanent tattoo applied to his deltoid area. Two days later, the area was itchy and exudative.



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

## What is the diagnosis?

a. Reaction to henna dye
b. Reaction to para-phenylenediamine
c. Secondary infection
d. Berloque dermatitis
e. Photo reaction to the dye

## Answer

Henna is a plant dye derived from a shrub. It has been used for centuries in hair dyes and skin decorations to give a reddish colour that disappears over the course of a few weeks.

As henna is a weak sensitizer, reactions to henna dyes are usually due to the admixture of *para-phenylenediamine (PPD)* (**answer b**). PPD added to henna gives a brown-black colour and decreases the fixing time of the henna tattoo.

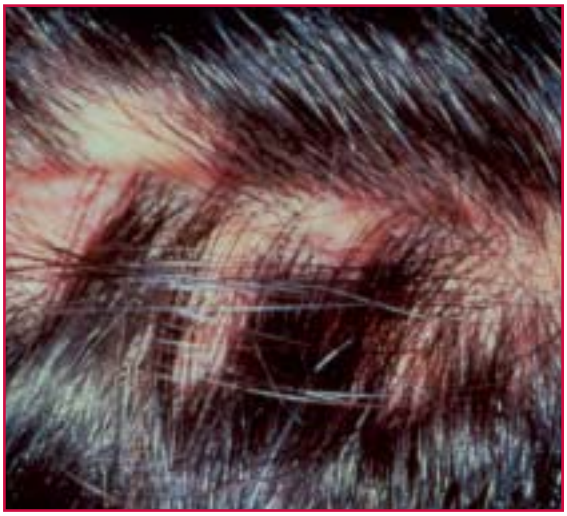
Treatment requires both oral and topical steroids with almost a month for the reaction to resolve. The patient is also advised to avoid all permanent dye products containing PPD.

*Cont'd on pg. 80* ⟶

## Case 8

# *"My hair's falling out!"*

A 38-year-old female presents complaining of an area of hair loss on her scalp. Follicles are not visible and scarring is present.



### *What do you think?*

a. Lichen planopilaris
b. Discoid lupus erythematosus
c. Alopecia areata
d. Pseudopelade
e. Folliculitis decalvans

### *Answer*

This woman has *lichen planopilaris* (**answer a**). Lichen planopilaris is a primary cause of scarring alopecia and a clinical syndrome of lichen planus. It is a dermatosis of unknown etiology and is more common in women than men.

Lesions consist of patchy hair loss with perifollicular erythema, follicular spines and scarring. Eventually, scars that are devoid of hair form little resemblance to the active disease—these are areas of atrophy, scarring and permanent hair loss. Lesions may persist for 18 months, with some resolving spontaneously and others persisting for years.

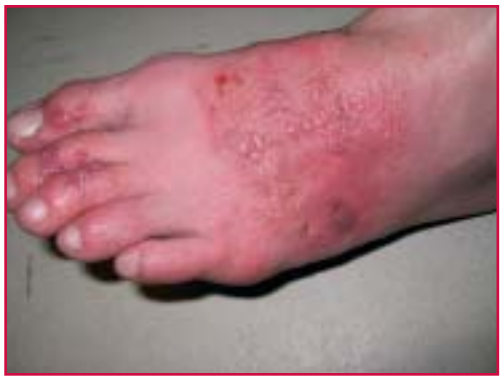
Treatment consists of antimalarials, antibiotics and topical, intralesional and oral corticosteroids. Oral antihistamines can control pruritis. More difficult cases may require systemic retinoids, cyclosporine or low-dose weekly oral methotrexate.

John Kraft, BSc, is a fourth-year Medical Student, University of Toronto; Carrie Lynde, BSc, is a first-year Medical Student, University of Toronto; and Charles Lynde, MD, FRCP(C), is a Dermatologist, Toronto, Ontario.

## Case 9

# *"What's on my feet?"*

A 24-year-old female presents with a pruritic, bullous eruption on bilateral dorsal feet.



## *What is the diagnosis?*

a. Porphyria cutanea tarda
b. Allergic contact dermatitis
c. Pemphigus vulgaris
d. Bullous impetigo
e. Bullous pemphigoid

## *Answer*

*Allergic contact dermatitis* (**answer b**) of the dorsal foot can be associated with exposure to poison ivy, poison oak or poison sumac and exposure to dyes, leather and rubber used in shoes and sneakers. In this patient's case, it was a pair of new leather shoes.

Dye and other allergens (*i.e.*, rubber, leather) are present in high concentrations in new shoes and are most likely to cause a reaction. Heat and perspiration may cause dyes in shoes or sneakers to leach into the skin, worsening the condition. The dye may not be visible on the sock or skin, but if the person is allergic to it, a dry, itchy rash may develop within one to two days.

Treatment involves avoiding the offending allergen and using a potent topical steroid cream with an oral antihistamine. Topical antibiotic ointments can be beneficial to prevent infection. If the reaction is severe or more widespread, a short course of oral steroids can be beneficial.

Benjamin Barankin, MD, is a Senior Dermatology Resident, University of Alberta, Edmonton, Alberta.

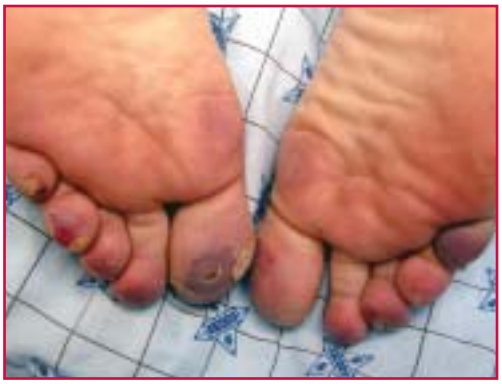
*Cont'd on pg. 84* ⟶

Case 10

# A Case of Cold Feet

A 74-year-old male presents with a two-year history of painful, purplish discolouration of the toes on both feet. His symptoms are mostly noticeable during the cold winter months and they almost resolve in warmer weather.

Arterial Doppler examination did not reveal any significant occlusive disease.



## What is your diagnosis?

a. Cholesterol embolism
b. Leukocytoclastic vasculitis
c. Methemoglobinemia
d. Raynaud's phenomenon
e. Pernio (chilblains)

## Answer

The correct diagnosis is *Pernio (chilblains)* (**answer e**). This is a condition that occurs as a result of a cold-related injury. The symptoms are more apparent during the winter and abate during the summer months.

Cryoproteinemia is occasionally seen in association with this condition. The treatment consists of keeping the hands and feet warm with clothing, minimizing exposure to the cold and using bland emollients. Vasodilators may be considered as a therapeutic option for severely afflicted individuals.

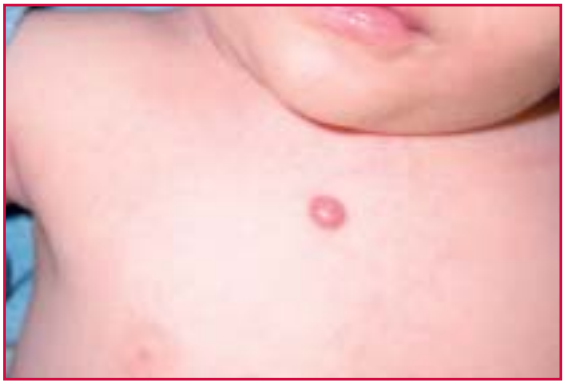
Raj Tuppal, MD, FRCPC, FACP, is a Consultant Dermatologist, Oshawa Clinic & Courtice Health Centre, and Active Staff, Lakeridge Health Corporation, Oshawa, Ontario.

Wanna learn more about childblains? Read about it in this month's ***Case In...***! (pg. 27)

Case 11

# A Papule Problem

A three-month-old male presents with an asymptomatic, yellowish-orange papule on his chest. His parents are concerned that it is cancer.



## What can it be?

a. Spitz nevus
b. Dermatofibroma
c. Xanthoma
d. Solitary mastocytoma
e. Juvenile xanthogranulomas

## Answer

*Juvenile xanthogranulomas* (JXG) (**answer e**) is a benign, asymptomatic, usually self-healing, orange-to-yellow papule composed of histiocytic cells that predominantly occur in infancy and childhood, with 10% of cases in adulthood. Papules occur most commonly on the skin, but rarely affect the eyes and viscera.

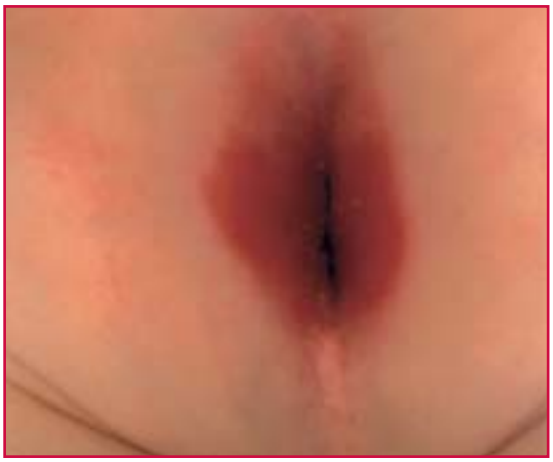
A skin biopsy can be performed if the diagnosis is in doubt and, unless multiple JXGs are present, further workup is seldom required. Skin JXGs can be excised for cosmetic reasons or simply observed, as some do resolve on their own.

Benjamin Barankin, MD, is a Senior Dermatology Resident, University of Alberta, Edmonton, Alberta.

Case 12

# An Anal Issue

This three-year-old complains of pruritus and pain.



## What is your diagnosis?

a. Child abuse
b. Candidiasis
c. Pinworm infection
d. Streptococcal perianal disease

## Answer

*Streptococcal perianal disease* (**answer d**), also known as perianal cellulitis, is an infection with *S. pyogenes* that presents bright, sharply demarcated perianal erythema extending 2 cm to 3 cm around the anal margin. It usually affects children under the age of four.

Patients may complain of pruritus, pain, blood-streaked stools or anal leakage. Systemic symptoms are absent.

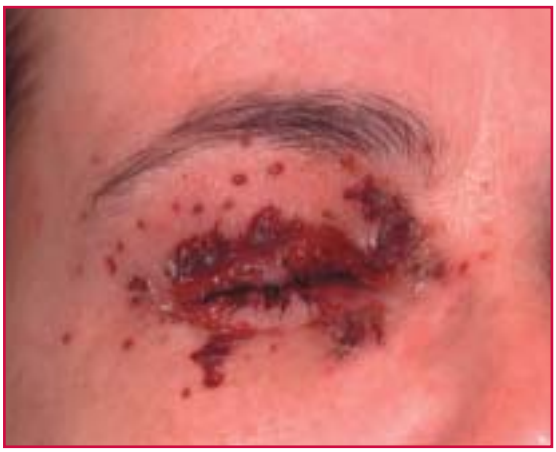
The disease can be diagnosed with skin culture and treated with a 10- to 14-day course of penicillin or erythromycine.

Dominique Hanna, MD, is a fourth-year Resident, Dermatology, Université Laval, Sainte-Foy, Quebec.

## Case 13

# *"Doc, my eyelid hurts!"*

This atopic patient presents with a painful eyelid eruption that started three days ago.



### *What do you think?*

a. Herpes simplex
b. Impetigo
c. Herpes zoster
d. Contact dermatitis

### *Answer*

*Herpes simplex* (**answer a**) is a viral disease caused by herpes simplex virus 1 and 2. It commonly produces orolabial and genital infection, but can occur anywhere on the skin and mucous membranes.

It is characterized by primary and recurrent vesicular eruption. A prodrome can precede recurrent lesions and a burning sensation is the most common symptom.

Herpes simplex of the eye is the second most common cause of corneal blindness in the US. When a diagnosis of herpetic infection of the eyelid is suspected, an ophthalmology consultation is always necessary.

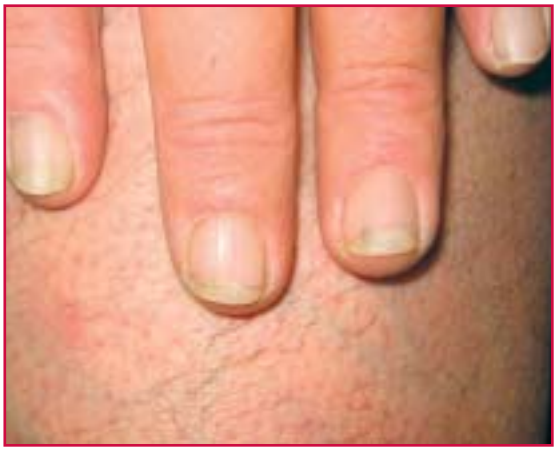
Oral antiviral medication is the treatment of choice.

Dominique Hanna, MD, is a fourth-year Resident, Dermatology, Université Laval, Sainte-Foy, Quebec.

## Case 14

# Nailing the Problem

A 55-year-old male with a past medical history of porphyria presents with an increasing white-translucent area on the distal nail plate of several nails.



## What would you diagnose?

a. Onychophagia
b. Onychoschizia
c. Onychonychia
d. Onychomadesis
e. Oncholysis

## Answer

*Oncholysis* (**answer e**) is a separation of the nail plate, beginning at the distal margin and progressing proximally. If a yellow-brown hue ("oil spot") is also noticed, psoriasis should be strongly suspected. The nail itself is smooth and firm.

Oncholysis is associated with lichen planus, eczema, thyroid disease, pregnancy and porphyria (as in this case). It is also reported with bacterial, viral and fungal infections.

Chemical causes include the use of solvents, nails hardeners and artificial nails. Chemotherapeutic agents can cause oncholysis and, more commonly, medications, such as the tetracyclines, can cause photo-oncholysis.

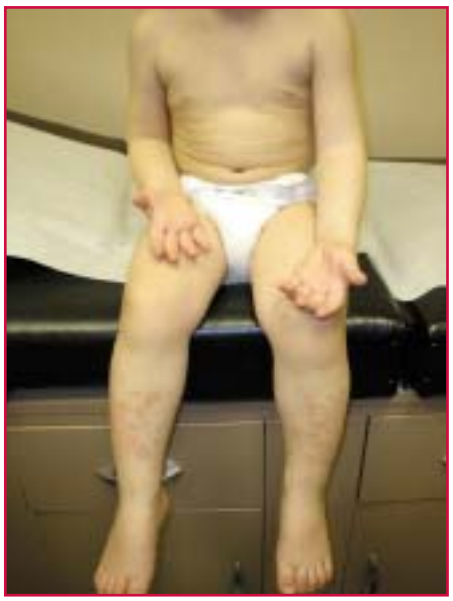
Trauma should be avoided and the nail bed kept dry. The affected portion of the nail can be clipped. The underlying cause should be identified and treated.

Benjamin Barankin, MD, is a Senior Dermatology Resident, University of Alberta, Edmonton, Alberta.

## Case 15

# *"Why am I so spotty?"*

Five weeks ago, this three-year-old male developed a fever, followed by a progressive papular-crusted eruption that has persisted since its onset.



## *What can it be?*

a. Guttate Psoriasis
b. Erythema multiforme
c. Scabies
d. Impetigo
e. Gianotti-Crosti syndrome

## *Answer*

*Gianotti-Crosti syndrome* (papular acrodermatitis of childhood) (**answer e**) is most commonly seen in young children with a mean age of two years.

It is a self-limited, usually viral-induced condition, with the most common causes being the Epstein-Barr virus or hepatitis B.

There is often a preceeding upper-respiratory problem, followed by skin-coloured to pink-red papules symmetrically distributed on the face, buttocks and the extensor surfaces of the extremities. Some lesions may be vesicular, purpuric or crusted. There may also be a low-grade fever. Inguinal or axillary lymphadenopathy can persist for months.

The eruption clears over four weeks, but may last to some degree for up to eight weeks. Aside from checking for hepatosplenomegaly, further investigation in an otherwise well child is not necessary.

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

Case 16

# Armpit Woes

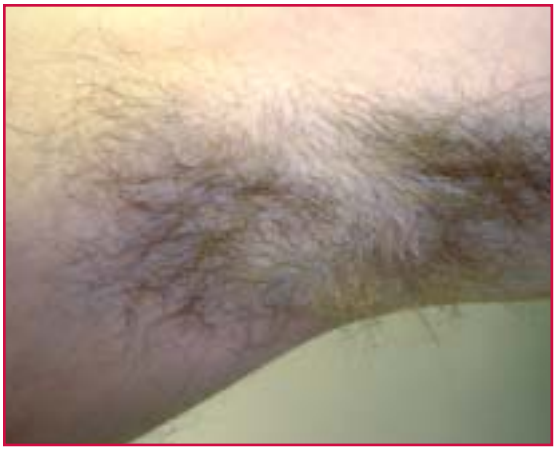
This 30-year-old male has noted a coating on his axillary hair.

## What do you think?

a. Seborrheic dermatitis
b. Pediculosis
c. Candidiasis
d. Trichomycosis axillaris
e. Erythrasma

## Answer

A coating of the axillary hair, *trichomycosis axillaris* (**answer d**) is a superficial bacterial infection that may also involve the pubic hair. It is due to a corynebacteria. It is usually asymptomatic, but may be associated with axillary odour. It responds well to oral or topical antibiotics.

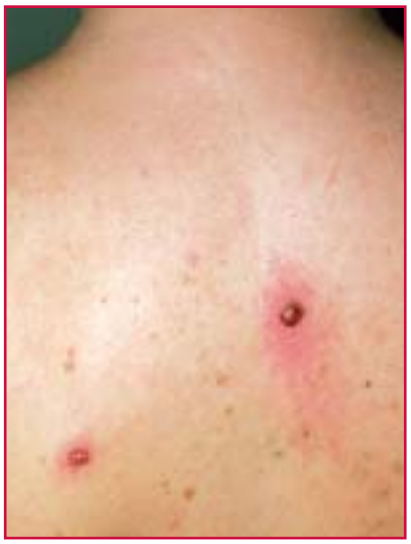


Stanley Wine, MD, FRCPC, is a Dermatologist, Toronto, Ontario.

Case 17

# A Mediterranean Matter

A 62-year-old, Mediterranean male with hypertension, who is otherwise healthy, presents with several red-blue papules on his upper back. These have been growing slowly over the years.



## What can it be?

a. Seborrheic keratosis
b. Kaposi's sarcoma
c. Cherry angioma
d. Hemangioma
e. Lymphoma

## Answer

This gentleman has *Kaposi's sarcoma* (KS) (**answer b**). KS is caused by human herpes virus 8. There are four variants of KS and they include:

- classic KS,
- African endemic KS,
- KS in iatrogenically immunosuppressed patients and
- AIDS-related epidemic KS.

Our patient has classic or chronic KS, which tends to be more common in people of Mediterranean or Jewish Ashkenazi descent.

Classic KS typically appears as a bluish-red macule on the distal lower legs. The lesion may coalesce with others and form a plaque or become nodular tumours. It may also become somewhat brown and the surface may become verrucous, hyperkeratotic and firm.

A histologic examination can be quite helpful in differentiating nodular KS from kaposiform hemangioendothelioma, angiosarcoma and spindle cell hemangioma.

The treatment of KS is dependant on the extent of the lesions and the clinical disease variant. This gentleman was bothered by the lesions and, since there were only a few lesions, he elected to have them surgically excised.

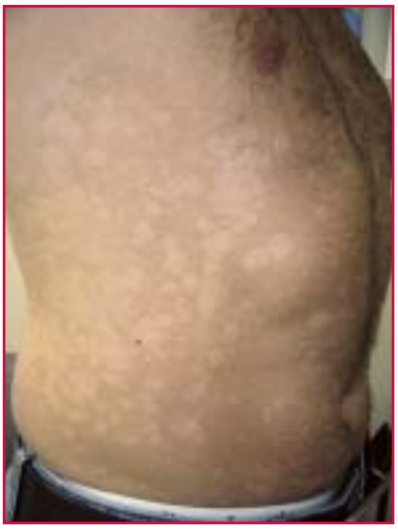
Other options include cryotherapy and laser surgery (for superficial plaques). Radiotherapy can be used for more extensive, relatively localized lesions. Systemic chemotherapy is used for rapidly progressive KS.

John Kraft, BSc, is a fourth-year Medical Student, University of Toronto; Carrie Lynde, BSc, is a first-year Medical Student, University of Toronto; and Charles Lynde, MD, FRCP(C), is a Dermatologist, Toronto, Ontario.

## Case 18

# "It's spreading!"

A 34-year-old male presents with a one-year history of a spreading, hypopigmented eruption that began on his back and now involves much of his trunk. There are also similar lesions on his neck. These lesions are well-defined, flat-topped patches and plaques with a light scale.



## What would you diagnose?

a. Tinea corporis
b. Pityriasis versicolor
c. Psoriasis
d. Eczema
e. Vitiligo

## Answer

This patient has *pityriasis (tinea) versicolor* (**answer b**). *Pityriasis versicolor* is a yeast infection of the skin, typically caused by the Malessezia species of fungi. It is found throughout the world and affects all ages and sexes.

The lesions are patches or thin plaques with a mild scale that can be tan (hypopigmented) or brown (hyperpigmented). Hypopigmentation is thought to result from yeast metabolites interfering with melanocyte function or decreased tanning due to the ability of the yeast to filter sunlight. It is often asymptomatic and patients are frequently concerned with the appearance.

The diagnosis can be confirmed by scraping a representative lesion and examining the scales in a potassium hydroxide slide preparation with a light microscope. A "spaghetti and meatballs" appearance of curved hyphae and clusters of round conidia of yeast makes the diagnosis. A culture is difficult and unnecessary.

Topical antimycotic treatments (*i.e.*, topical ketoconazole, 1% or 2%, or 2.5% selenium sulfide shampoo) are often successful. It is often helpful to treat all skin from the neck to the knees. The topical preparation can be applied overnight and washed off in the morning; this should be done twice weekly for two to four weeks. Other topical treatments include some over-the-counter dandruff shampoos, nystatin and salicylic acid.

For more extensive cases, such as our patient, a short course of oral antifungal therapy is often used. Our patient was treated with itraconazole, 200 mg, orally, every day for seven days, in combination with topical ciclopirox.

Recurrences can be common, especially in hot, humid climates. A weekly ketoconazole shampoo used as a soap may be helpful. Patients should be advised that pigmentary changes may not resolve for months.

John Kraft, BSc, is a fourth-year medical student, University of Toronto, Toronto, Ontario; Carrie Lynde, BSc, is a first-year medical student, University of Toronto, Toronto, Ontario; Jennifer Upitis, MD, is a Family Physician, Markham, Ontario; and Charles Lynde, MD, FRCP(C), is a Dermatologist, Toronto, Ontario.

Case 19

# Turned Down for Botulinum

This 40-year-old male shaved his head, and now he wonders about botulinum toxin injections. We told him botox would not work, as he had:

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

## What do you suspect?

a. Pilar cysts
b. Lipomata
c. Mycoses fungoides
d. Cutis verticis gyrata
e. Collegenoma

## Answer

This slight-to-deep furrowing of the scalp, *cutis verticis gyrata* (CVG) (**answer d**), is sometimes called bulldog scalp. The scalp may have a gyrate or cerebriform appearance. It may be primary or associated with other diseases.

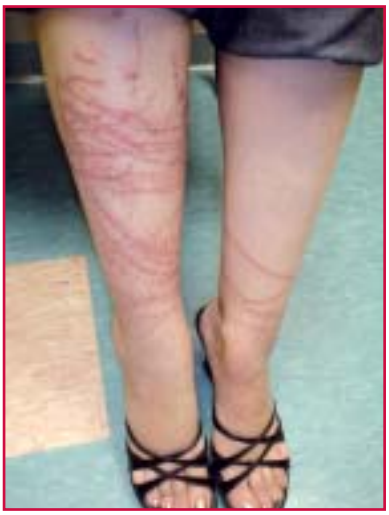
Most cases have been reported in men and occur during or soon after puberty. While most cases are primary, a syndrome of CVG, mental retardation, cerebral palsy and epilepsy only in males, is well-known.

CVG has been associated with acromegaly and a number of lesser diseases. The condition is usually asymptomatic, except when the deeper furrows accumulate cutaneous debris and secretions. Good hygiene is, therefore, necessary.

## Case 20

# *Swimming and Stinging*

This 54-year-old female noted a stinging sensation on her legs and thighs after swimming off the coast of South Carolina. A linear eruption soon became evident.



## *What would you diagnose?*

a. Sea bather's itch
b. Jelly fish stings
c. Poison sumac reaction
d. A koebner phenomena
e. Lichen planus

## *Answer*

Contact with the phylum Cnidaria (*jelly fish*, corals and sea anemones) (**answer b**) results in the "firing" of nematocysts and the injection of a toxin into the skin.

A sharp stinging pain is felt within minutes, due to a primary irritant reaction. An erythematous, oedematous to blistering eruption is noted along the lines of contact. The lesions resolve over several weeks with secondary pigmentation.

Rarely, a delayed type hypersensitivity reaction occurs that is much more pruritic and takes longer to resolve.

A weak vinegar solution should be applied as quickly as possible after exposure, as it will help to neutralize the toxin and wash away any remaining nematocysts. Plain water would cause the discharge of these cysts.

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