This month – 7 cases:

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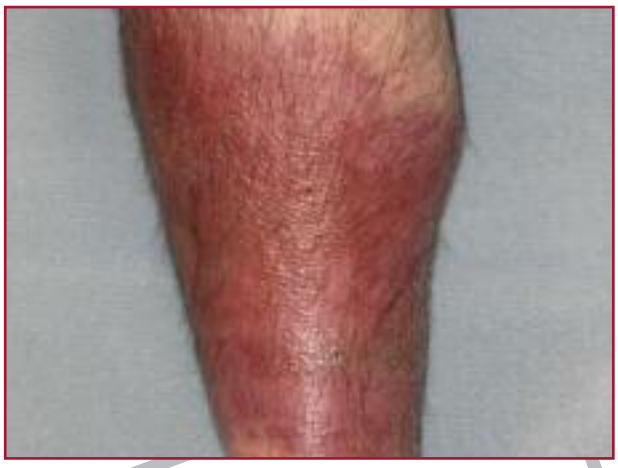
Case 1

A Spreading Red Leg Plaque

A 54-year-old male presents with a painful, erythematous, shiny plaque that is spreading on his lower left leg. He reports having no drug allergies or previous skin disease and does not recall experiencing recent trauma to his leg. He feels unwell and is febrile.



What is your diagnosis?

a. Superficial thrombophlebitis
b. Contact dermatitis
c. Fixed drug eruption
d. Cellulitis
e. Erythema nodosum

Answer

Cellulitis **(answer d)** is an acute infection of the dermal and subcutaneous tissues that is caused by pathogenic bacteria, most commonly, Group A streptococci (GAS) and *Staphylococcus aureus*. Clinically, cellulitis presents as an erythematous, hot, shiny plaque which, if untreated, will spread from the site of bacterial entry along tissue spaces and cleavage planes.

In adults, cellulitis is most commonly found in the lower leg, whereas children are more often seen with cellulitis in the cheeks, periorbital area and head and neck. Cellulitis is frequently associated with fever, chills, malaise and pain at the site of infection.

The diagnosis of cellulitis is made on clinical examination alone. Blood cultures are often performed, particularly if the patient becomes septic. In healthy patients, when GAS or *Staphylococcus aureus* is likely the causative agent, lactam antibiotics, active against penicillinase-producing *Staphylococcus aureus*, are given. Other patient populations such as diabetics and immunocompromised patients may require different dosing regimes.

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Case 2

Skin Spots

A 20-year-old beach volleyball player presents with skin lesions. He is concerned about an infection he could have acquired after a trip to the Caribbean where he used sun tanning cream lent from his friends.

What is your diagnosis?

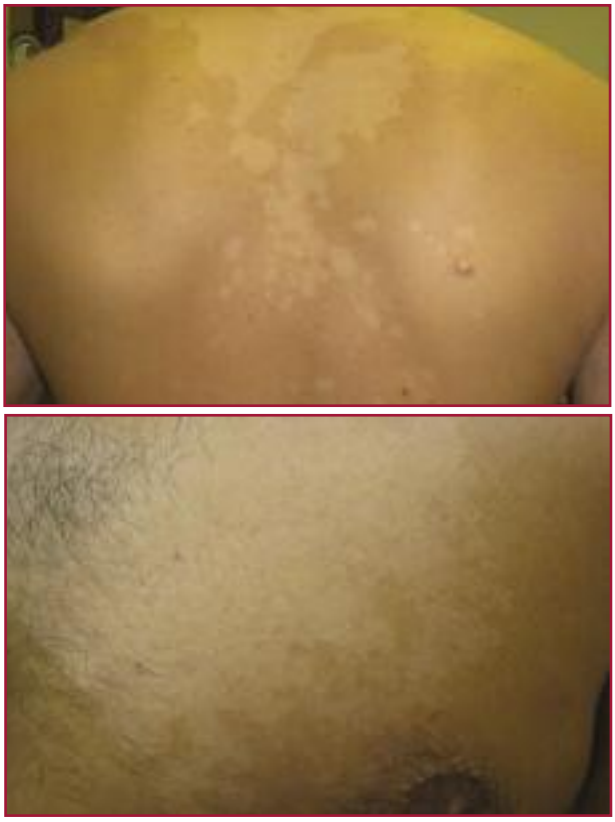
a. Vitiligo
b Pityriasis alba
c. Pityriasis versicolor
d. Tinea corporis
e. Guttate psoriasis

Answer

Pityriasis versicolor **(answer c)** is a scaling epidermomycosis caused by the yeast *Malassezia furfur*. This organism lives in the keratin of the skin and hair follicles. The infection can last months to years. This infection is not contagious, instead the flora that resides in the skin can overgrow by predisposing conditions.

The typical lesions are well demarcated, hypopigmented macules that frequently enlarge and merge forming geographic patterns. They are frequently seen in the trunk but they can be seen also in the neck, upper arms, axillae, thighs, groin and genitalia. The infection is asymptomatic but the patient usually consults due to cosmetic concerns. Some patients may have signs of folliculitis or seborrheic dermatitis.

The lesions are produced by post-inflammatory hypomelanosis and the hypopigmentation may remain for weeks after the active infection has disappeared.



The diagnosis is clinical. It can be assisted by Wood's lamp which can demonstrate blue-green fluorescent scales, or KOH preparations.

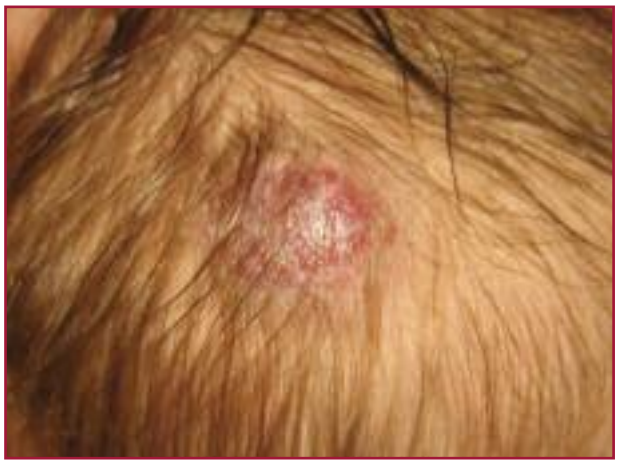
Treatment may be topical with selenium sulphide (2.5%) shampoo or lotion, ketoconazole shampoo or azole creams. Systemic therapy with ketoconazole, itraconazole or fluconazole can be used in some cases.

Juan Antonio Garcia-R, MD, CCFP, Dips Sport Med. is an Academic Family Physician practicing in Calgary, Alberta.

Case 3

Abnormal Growth on the Head

A two-month-old female infant presents with a rapidly growing vascular tumour over the right scalp. It was not present at birth.



What is your diagnosis?

a. Port-wine stain
b. Hemangioma of infancy
c. Telangiectasia
d. Dermatofibrosarcoma protuberans
e. Rhabdomyosarcoma

Answer

Hemangioma of infancy (HI) **(answer b)** are benign soft tissue vascular growths which are common in childhood and may involve any part of the body. Most of these lesions resolve spontaneously with > 90% of patients having no residual HI by nine- to 10-years-of-age. Early on, they appear bright red to scarlet in colour and have a plaque-like, nodular or tumoural morphology. Treatment decisions should be based on several factors including size, location, age of the patient, growth phase and psychosocial distress.

A port-wine stain (or nevus flammeus) is a vascular malformation that appears as a pink to dark red stain and most commonly involves the face. Unlike hemangiomas, port-wine stains are macular (flat) and static in their growth during the first year of life. They may be associated with a variety of syndromes.

The term telangiectasia describes a condition where the capillaries, venules or arterioles in the skin are permanently dilated. They may be a result of sun exposure, aging, radiation, or a systemic disorder. They classically disappear with gentle pressure (best demonstrated by compression with a glass slide).

Dermatofibrosarcoma protuberans is occasionally seen congenitally although most lesions present in adults. They begin as red to blue papules and nodules that grow in size to become multinodular and protuberant. These slowly growing fibrohistiocytic tumours have intermediate malignant potential, can become metastatic and thus should be completely excised with adequate margins.

Rhabdomyosarcoma commonly affects the head and neck areas, especially the nasal and paranasal cavities. These malignant soft tissue tumours of skeletal muscle origin present as flesh-coloured to erythematous nodules that can extend to the skin surface.

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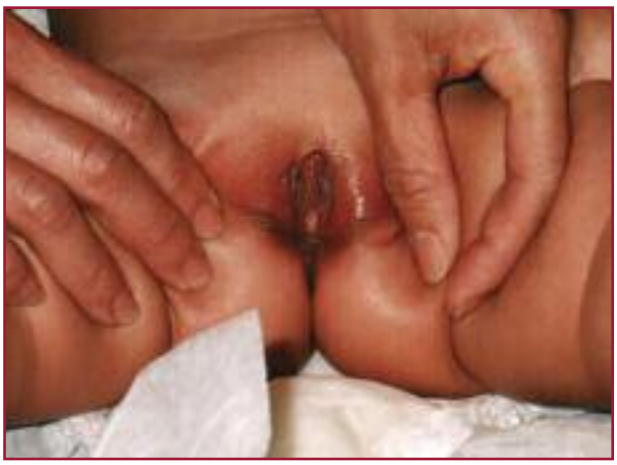
Case 4

Vaginal Mass

A four-month-old girl presents with a mass protruding from the introital area. The lesion is asymptomatic and has been present since birth.



What is your diagnosis?

a. Introital cyst
b. Hymenal tag
c. Prolapsed ureterocele
d. Labial fusion

Answer

Hymenal tag **(answer b)** is a common finding in infancy. The condition is present in approximately 3% to 13% of newborn girls. The tags are most commonly found in the superior and inferior positions of the hymen. They tend to regress with time. Hymenal tags may represent a remnant of a vaginal septum present earlier in fetal development. New hymenal tags may develop postnatally as a result of extension of an intravaginal or external hymenal ridge.

The condition is usually asymptomatic and no treatment is necessary. Rarely, a hymenal tag may bleed or become infected.

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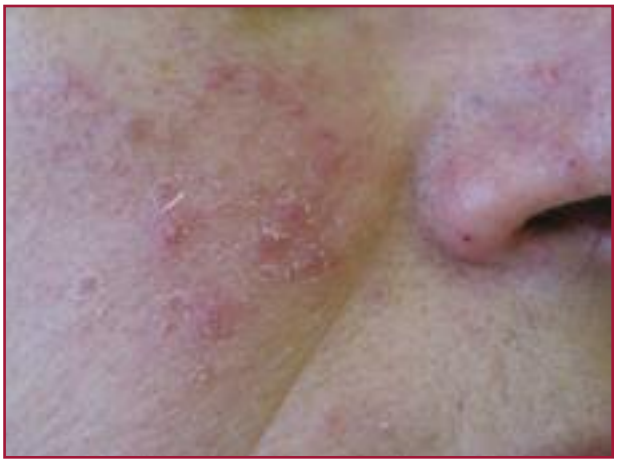
Case 5

Red, Pimply Face

A 45-year-old female presents with a three-year history of easy flushing, erythematous papules and pustules and sensitive facial skin. She had mild acne as a teenager and has hypertension treated with an ACE inhibitor.



What is your diagnosis?

a. Adult-onset acne
b. Irritant contact dermatitis
c. Rosacea
d. Seborrheic dermatitis
e. Steroid-induced acne

Answer

Rosacea **(answer c)** is a common, chronic condition that can affect anyone, but most commonly middle-aged, fair-skinned European and Celtic origin adults. It is characterized by easy flushing, erythema, telangiectases, papules and pustules—each affected individual can have one or more of these features. Ocular involvement is fairly common and can present as blepharitis, conjunctivitis, burning, or dryness. The main defined subtypes are: erythematotelangiectatic (mainly erythema and telangiectases), papulopustular (mainly papules and pustules), phymatous (skin thickening—nose affected most commonly, but chin and forehead may also be involved) and ocular rosacea.

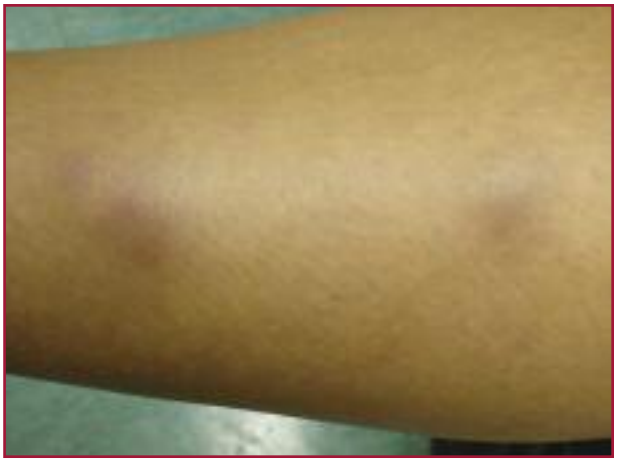
Management involves minimizing the triggers of rosacea such as: hot or cold temperatures, sun, wind, caffeine, alcohol, hot and spicy food and exercise. Patients should be encouraged to wear sun protection. A sunblock (*e.g.,* zinc oxide, titanium dioxide) rather than sunscreen is preferred as it is less irritating in those with sensitive skin. Topical metronidazole is frequently employed and there can be benefits from acne preparations that include benzoyl peroxide, clindamycin or erythromycin. For severe cases or those with ocular involvement, oral antibiotics such as those in the tetracycline family are commonly employed. Oral isotretinoin at low doses for severe papulopustular rosacea can be quite effective. Lasers and intense pulsed light therapy are the mainstay of therapy for erythematotelangiectatic rosacea.

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

Case 6

Tender Leg Lesions

This 16-year-old girl has been in good health except for a recent sore throat. Shortly thereafter she developed tender lesions on both legs.



What is your diagnosis?

a. Erythema nodosum
b. Erythema multiforme
c. Panniculitis
d. Abscesses

Answer

Erythema nodosum (EN) **(answer a)** is the most common form of inflammatory panniculitis. It may occur at any age and in both sexes but it is less common in children. In younger individuals it is equal in the sexes but more common in young adult females 2:1.

The lesions occur as red, tender, shiny nodules of varying sizes on both legs usually on the pretibial or lateral legs. They have also appeared on thighs and arms. Over time, they will flatten and look more bruised. Occasionally there is swelling of the lower legs.

Onset is sudden. There may be associated fever, malaise and joint pain. New lesions appear over time, fade and disappear usually over a few weeks with scars. They do not ulcerate.

Acute EN is a reactive process. Streptococcal sore throat is by far the most common cause in younger individuals. Treating the strep infection however, does not lessen the duration of the eruption.

Adults, especially those that travel, may acquire deep fungal infections or TB that must be ruled out. Sarcoidosis and inflammatory bowel disease, as well as OC and hormone replacement therapy, also may be precipitating causes.

Chronic EN occurs usually in older individuals, may last months to years and is not painful or associated with underlying disease.

In this individual, a throat swab and antistreptolysin-O titre should be obtained. Further investigation is not warranted as might be the case if she were older and had a suspicion of other causes.

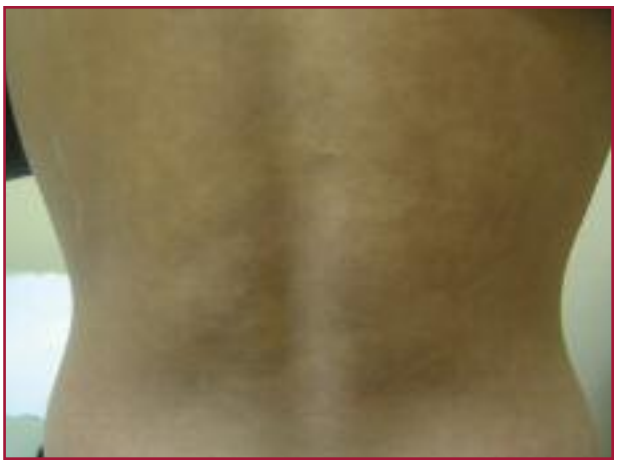
Treatment is that of the underlying disorder if found. Decreased activity and NSAIDs are helpful over the healing period, usually three to six weeks. Rarely colchicine or antimalarials are used.

Stanley Wine, MD, FRCPC, is a Dermatologist in North York, Ontario.

Case 7

Back Markings

A 21-year-old female presents with mottled, tan to light brown, smooth, non-scaly, reticulated pigmentation of the mid back region. She has a history of chronic back pain and has been using hot water bottles as a long-term treatment. The pigmentation corresponds to the exact site to which she applied the hot water bottles.



What is your diagnosis?

a. Pityriasis versicolor
b. Confluent and reticulated papillomatosis
c. Macular amyloidosis
d. Erythema ab igne
e. Livedo reticularis

Answer

Erythema ab igne (EAI) **(answer d)** is an erythematous, reticulated, hyperpigmented eruption that arises following repeated exposure to moderate levels of infrared radiation from a heat source. EAI begins with a transient, reticular erythema. Repeated exposure to heat leads to the formation of a more pronounced erythema with hyperpigmentation and possible superficial epidermal atrophy. Poikiloderma with erythema, noticeable hypo- and hyperpigmentation, reticulate telangiectasia and hyperkeratosis can develop if exposure persists. Typically, EAI is asymptomatic, though a minor burning feeling is not uncommon.

The main treatment for EAI involves removing the offending heat source. If this is accomplished at the initial onset of skin change, then prognosis is excellent and early hyperpigmentation may eventually resolve itself. However, if the source is not discontinued, or the problem is addressed too late, pigmentation changes may persist. Tretinoin or hydroquinone may be used to treat any residual hypo- or hyperpigmentation.

cme

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