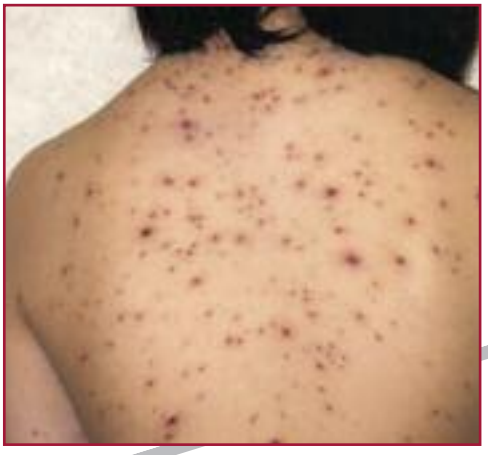
This month – 7 cases:

Case 1

Itchy Lesions

A seven-year-old girl developed a rash seven to 10 days ago. She had a low-grade fever which preceded the rash by one to two days. The lesions are very itchy. Macules, papules and vesicles are in various stages of development. Her five-year-old brother had a similar rash one month ago.

Upon physical examination, her temperature is 37.2˚C, her pulse is 76 bpm and her respiratory rate is 18 breaths per minute. Crusting of skin lesions are seen, notably on the trunk. The cervical and axillary lymph nodes are enlarged bilaterally.



What is your diagnosis?

a. Rubella
b. Rubeola
c. Herpes simplex
d. Chickenpox
e. Herpes zoster

Answer

Chickenpox **(answer d)** is an infection caused by the varicella-zoster virus. It is acquired mainly by direct contact with varicella or zoster lesions, or by inhalation of infected airborne droplets. The incubation period is around 10 to 21 days. Prodromal symptoms may include slight malaise and low-grade fever. The lesions start as rose-coloured macules and progress rapidly to become papules, vesicles, pustules and finally, crusts. The lesions appear in crops and are intensively pruritic. The distribution of the lesions is typically central in nature.

The most common complication is secondary bacterial infection of the skin. Post-inflammatory scarring of isolated lesions is very common. Other complications include cerebellar ataxia and encephalitis.

Chickenpox can be prevented by universal varicella immunization of all susceptible healthy individuals ≥ 12 months.

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Case 2

Nail Deformity

This young female presents with strange deformities of her nails.

What is your diagnosis?

a. Nail psoriasis
b. Terry's nails
c. Habit-tic deformity
d. Onychomycosis
e. Darier's disease

Answer

Habit-tic deformity **(answer c)** is a common self-induced nail condition that results from chronic, habitual mechanical trauma to the cuticle and proximal nail fold. The most common scenario involves the thumbnail where a patient has repeatedly picked at the cuticle and proximal nail fold with the index finger of that same hand as a compulsive habit. The nails of other fingers can also be involved but it is less common.

The typical nail plate finding of habit-tic deformity is many parallel transverse grooves, sometimes with yellowish-brown discolouration, running down the middle of the affected nail. In addition, the cuticle may be pushed back with redness and swelling of the proximal nail fold also visible.

Behaviour modification is the mainstay of treatment. Patients must be encouraged to stop their compulsive habit-tic. One simple approach is to apply tape over the cuticle and proximal nail fold so as to remind patients to stop their compulsive habit-tic and to lessen the habitual trauma experienced by these areas. Of course, the already damaged areas of the nail plate cannot be repaired, but rather the goal of treatment is to sustain a tic-free period so normal nail can grow.

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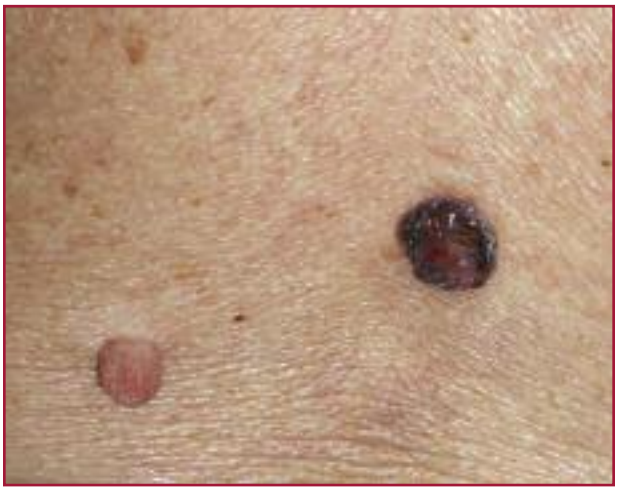
Case 3

A Persistent Papule

This patient presents with a nodular-brownish lesion, which he had for a few years.



What is your diagnosis?

a. Malignant melanoma
b. Pigmented basal cell carcinoma
c. Hidrocystoma
d. Lichen planus
e. Superficial spreading basal cell carcinoma

Answer

The presentation of pigmented basal cell carcinoma (BCC) **(answer b)**, the most common human cancer, is an asymptomatic papule that often goes unnoticed by patients. The typical presentation is an enlarging papule or a sore that does not heal and bleeds easily—the so-called "rodent ulcer."

This condition is characterized by an asymptomatic papule that often goes unnoticed by patients.

The sun exposed areas of the head and neck are the most common sites involved. A papule or plaque with a pearly or translucent appearance and crossed by telangiectasias is highly suggestive. Superficial BCCs resemble a patch of dermatitis with a pearly rim. Sclerosing BCCs are insidious and hard to diagnose. They are white to yellow and often indistinguishable from common scar tissue.

Pigmented BCCs resemble a nodular malignant melanoma.

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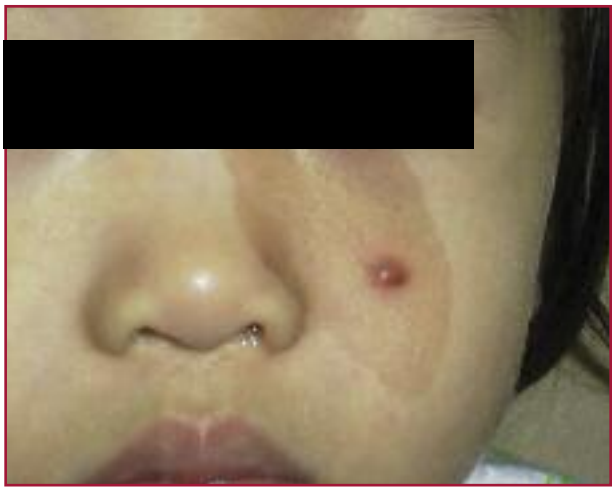
Case 4

A Long-Lasting Nodule

An 18-month-old girl presents with a nodule on her left cheek. The nodule has been present since birth, as well as a *café-au-lait* patch on the left side of her face. When examined through a glass slide compressing the surface of the nodule, brown pigmentation is visualized.



What is your diagnosis?

a. Spitz nevus
b. Melanoma
c. Pyogenic granuloma
d. Spilus nevus

Answer

Spitz nevus **(answer a)** is a distinct subtype of melanocytic nevus that often occurs in childhood. Approximately 7% of the lesions are congenital, the rest are acquired. Typically, spitz nevi are:

- solitary,
- well-circumscribed,
- smooth-surfaced,
- dome-shaped,
- firm and
- hairless.

Approximately 7% of the lesions are congenital, the rest are acquired.

The colour varies from pink to tan to dark brown. The size varies from 2 mm to a few centimeters. Although the lesion may occur on any part of the body, the head and neck are sites of predilection. When examined through a glass slide compressing the surface of the lesion, brown pigmentation is often seen which confirms the melanocytic nature of the lesion. Surface telangiectasia may also be seen.

Management of spitz nevi is controversial. Some authors recommend excision of the lesions. Others recommend a conservative approach with periodic follow-up, except for those with atypical features and those causing cosmetic problems which necessitate excision.

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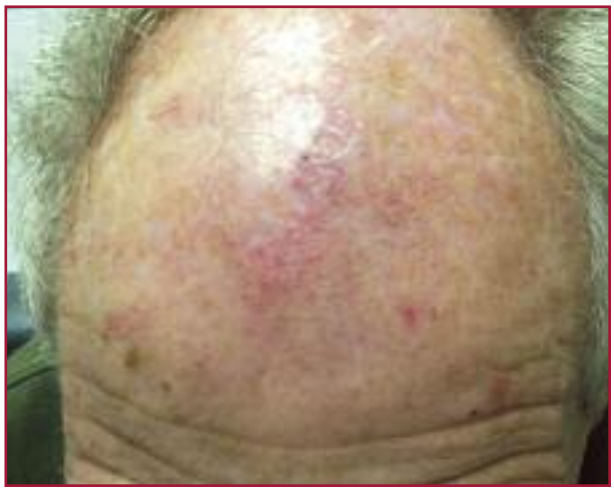
Case 5

Concerning Lesions

This gentleman presents with lesions on his forehead which he has had for a few years. He used to work in open spaces in Australia (*i.e.*, was exposed to sun). He is concerned about the possibility of cancer.



What is your diagnosis?

a. Eczema
b. Psoriasis
c. Lichen planus
d. Actinic keratosis
e. Squamous cell carcinoma

Answer

Actinic keratosis (AK) **(answer d)**, in general, is asymptomatic; however, sometimes patients complain of itching or burning. These symptoms should be considered as signs of possible transformation to squamous cell carcinoma (SCC).

AK presents as small, 3 mm to 6 mm, red, rough, poorly circumscribed patches on sun-exposed skin. Common sites include the:

- nose,
- tips of ears,
- forehead,
- forearms and
- hands.

AK is extremely common in the elderly. Most AK does not progress to SCC and with scrupulous sun protection, some resolve spontaneously. Lesions that grow rapidly, ulcerate, thicken, or become symptomatic should be held in suspicion as possibly early SCCs.

AK that does not resolve within one month should be treated with light cryotherapy or light electrodesiccation and curettage.

Fluorouracil solution (2% or 5%) applied twice daily for up to three weeks may be used for patients with numerous lesions. Patients should be warned that fluorouracil often causes contact dermatitis and photosensitivity.

Patients with AK respond well to therapy; however, they are likely to develop new lesions and yearly follow-up is reasonable.

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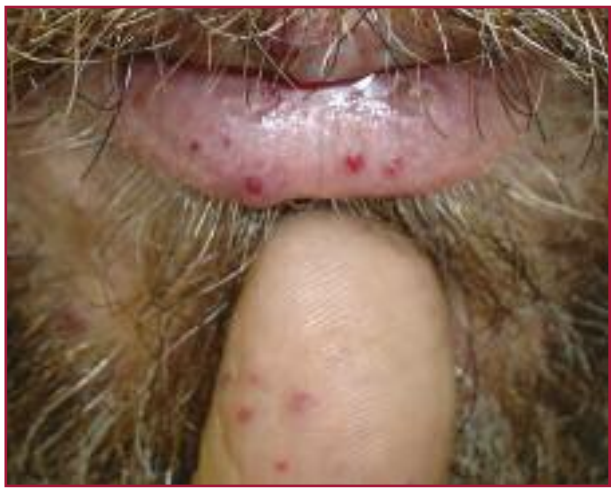
Case 6

Mat-Like Telangiectasias

This 49-year-old man has suffered from epistaxis since childhood. It was not until his early teens that lesions where noted on his lips.



What is your diagnosis?

a. Early acquired HIV
b. Blue rubber bleb nevus syndrome
c. Venous lakes
d. Chronic lymphocytic leukemia
e. Hereditary hemorrhagic telangiectasia

Answer

Hereditary hemorrhagic telangiectasia (HHT) **(answer e)** or Osler-Weber-Rendu disease is an autosomal dominant condition. Papules or mat-like telangiectasias typically appear on the:

- lips,
- tongue and
- nasal mucosa (causing nose bleeds).

Lesions also appear on the:

- face,
- hands and
- finger tips.

Complications can occur from arteriovascular malformations in the GI tract, lungs or brain.

Easily accessible lesions of the nares mucosa or skin can be cauterized as needed. Appropriate investigations of other organ systems is required.

Complications can occur from arteriovascular malformations in the GI tract, lungs or brain.

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Case 7

A Pruritic Rash

A 54-year-old lady presents with a three week history of a mildly itchy rash on her right flank area. The patient is known for diabetes which is well controlled with oral medication. There is no history of any new drugs taken.

What is your diagnosis?

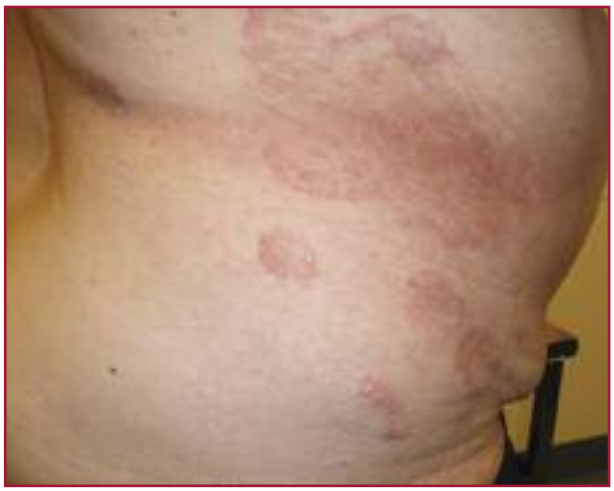
a. Lupus erythematosus
b. Psoriasis
c. Dermatophytosis
d. Pityriasis rosea
e. Eczema

Answer

Dermatophytosis **(answer c)**. Dermatophytes are a unique group of fungi capable of infecting nonviable keratinized cutaneous structures, including stratum corneum, nails and hair. The term dermatophytosis denotes an infection caused by dermatophytes.

Numerous fungi are capable of superficially invading the epidermis and adnexa (*i.e.*, hair/hair follicles and nail apparatus) and mucosal sites (*i.e.*, oropharynx, anogenitalia). These fungi are commensural organisms that frequently colonize normal epithelium and include the dermatophytes, *Candida spp* and *Malassezia spp.* Infections can extend more deeply in the immunocompromised host.

Dermatophytes that affect the body are known as tinea corporis and present clinically as single or multiple, well-demarcated, erythematous plaques with active scaly border.



The differential diagnosis is broad and includes subacute cutaneous lupus erythrematosus, psoriasis, eczema, *etc.* However, diagnosis can be confirmed easily by seeing septate hyphae under light microscopy, after scraping some of the lesional scales and adding a few drops of potassium hydroxide to the glass slide.

Tinea corporis is treated with topical antifungal preparations (*e.g.*, azole or allylamine groups) for approximately three weeks.

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