



This month — 8 cases:

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Case 1

Scattered, Red Papules

A 59-year-old female presents with multiple, asymptomatic, scattered, red papules on her trunk that have increased in quantity over time.

What is your diagnosis?

- Compound nevi
- Spider angiomas
- Campbell de Morgan spots
- Senile purpura
- Petechiae

Answer

This patient has Campbell de Morgan spots or cherry angiomas (**answer c**). Cherry angiomas are a common vascular proliferation in the skin that are often widespread, particularly on the trunk. They are benign and occur increasingly with aging, and they rarely self-resolve.

These lesions can occur anywhere except the mucous membranes. Cherry angiomas can have a variable appearance, ranging from a small red macule to a larger dome-topped papule, with colours ranging from bright cherry red to violaceous.

The diagnosis is almost always made clinically, although dark brown or black lesions (thrombosed) may need a skin biopsy to rule out melanoma.



Treatment for cherry angiomas is recommended only where irritation or bleeding is present, or in instances where the patient considers the lesions to be cosmetically undesirable. Otherwise, simple reassurance is often sufficient for most patients. Cherry angiomas are most commonly treated by electrodesiccation, although shave excision, curettage, pulsed dye laser, and cryotherapy can also be tried.

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Case 2

Large, Brown Chest Patch

A seven-year-old boy is noted to have a brownish patch on the right side of his chest and right upper abdomen. The child is otherwise healthy.

What is your diagnosis?

- a. Café au lait patch
- b. Spilus nevus
- c. Linear and whorled nevoid hypermelanosis
- d. Becker's nevus

Answer

A café au lait patch (**answer a**) is a flat, discrete, uniformly pigmented lesion, usually with a well-defined border. A large café au lait patch may have an irregular border and resemble the jagged and shaggy "coast of Maine." The pigmentation is tan or light brown in light-skinned individuals and dark brown in dark-skinned individuals. The border is distinct and usually smooth. The pigmentation is usually present at birth or shortly thereafter. Solitary café au lait macules have no clinical significance. Large café au lait patches or multiple café au lait macules can be a marker for several systemic diseases, particularly neurofibromatosis type 1 and McCune-Albright syndrome.

Spilus nevus typically presents as a light brown, circumscribed pigmentation that is stippled with dark brown punctate macules or papules. Linear and



whorled nevoid hypermelanosis is characterized by linear streaks and swirls of macular hyperpigmentation in a reticulate pattern along Blaschko's lines without any preceding inflammatory or palpable verruciform lesions. Becker's nevus typically begins in the second decade of life as a circumscribed brownish, macule or patch that gradually enlarges in an irregular fashion, similar to a geographical configuration. Hypertrichosis usually develops a few years after the pigmentation.

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Case 3

Erythematous Flank Papules

A five-year-old boy presents with a six-month history of erythematous papules over the left flank that have resolved over the last few months, leaving a hypopigmented linear patch.

What is your diagnosis?

- a. Incontinentia pigmenti
- b. Atopic dermatitis
- c. Lichen striatus
- d. Inflammatory linear verrucous epidermal nevus

Answer

Lichen striatus (**answer c**) is a benign, self-limiting, and usually unilateral dermatitis of unknown origin that generally affects children. It often presents with a curvilinear band of small, flat-topped, pink or flesh-coloured papules. In dark-skinned individuals, the eruption may appear scaly. The extremities are the most commonly affected areas; however, the face, neck, trunk, and buttocks can also be affected. The eruption tends to follow Blaschko's lines and is usually asymptomatic, reaching its peak within a few weeks to months. No therapy is needed, as it usually resolves within 3 to 12 months and leaves behind an area of hypopigmentation that subsequently disappears.

Incontinentia pigmenti is an X-linked disorder, predominantly found in females and thought to be lethal *in utero* for males. The disorder is due to mutations in a nuclear factor-kB essential modulator. The skin, central nervous system, eyes, dental, and skeletal system are affected. Cutaneous manifestations are present at birth or within the first two weeks of life



and present with lesions that have four phases: inflammatory vesicles, verrucous lesions, streaks of hyperpigmentation, and, finally, streaks of atrophy/hypopigmentation

Atopic dermatitis is a common skin disorder that presents with pruritus and eczematous changes. The eczematous changes are associated with type I (IgE-mediated) hypersensitivity reaction and Th2 cellular response, producing, prolonged, severe pruritus. Skin changes include mild erythema to severe lichenification and excoriations, which are secondary to scratching. Lesions are age-specific and appear on the face, neck, and extensor surfaces in infants and young children, and on flexural regions in older children. Treatment is aimed at maintaining skin moisture and avoiding allergic reactants and irritants, and topical steroids may also be required.

Inflammatory linear verrucous epidermal nevus (ILVEN) is a type of nevus that appears erythematous, scaly, and has verrucous papules that coalesce to a linear plaque following Blaschko's lines. Affected areas are most often on the extremities. The lesion usually presents at birth or early childhood. It is known for its chronic pruritus and its resistance to therapy. Some lesions may spontaneously improve.

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Case 4

Sore Pimple on the Buttock

A 32-year-old male truck driver arrives at the clinic complaining of a sore pimple on his buttock of a few days duration. He denies having had similar lesions in the past. He reports that the friction from the waistband of his underwear has been aggravating it. On physical examination, there is an 8 mm opening with thick, yellow exudate on the left side of his buttock. An underlying induration of 3 cm is also noted with moderate tenderness.

What is your diagnosis?

- a. Furuncle
- b. Carbuncle
- c. Acne vulgaris
- d. Folliculitis
- e. Pilonidal cyst

Answer

A furuncle (**answer a**), also known as a boil, is a very common occurrence. It is an abscess that forms within a hair follicle. A carbuncle is a group of furuncles that usually lie deep within the skin and are more likely to form a scar.

Staphylococcus is a commonly identified pathogen causing this condition. Though these lesions can occur in anyone, those at higher risk include obese, elderly, and immuno-compromised individuals.

Furuncles are usually located in hair-bearing areas of the body, which perspire and undergo friction. These include the axilla, groin, buttocks, the area underneath abdominal fat pads, and the face.

A furuncle typically starts as a small, pink, tender papule or nodule, similar to a pimple. It gradually becomes larger and more painful as it accumulates



purulent material. The surrounding skin becomes increasingly inflamed and swollen as the lesion forms a fluctuant mass. It eventually tends to rupture and drain, either on its own or following a therapeutic incision and drainage procedure.

Diagnosis is made based on the appearance of the lesion. If furuncles are a recurring problem, or if they fail medical management, a culture should be obtained to help guide further treatment.

Patients are encouraged to keep the area clean and to apply warm compresses to help encourage drainage and relieve pain. An incision and drainage may be necessary if supportive measures are failing, and this is typically performed in the office setting. Antibiotic treatment should cover *Staphylococcus* and *Streptococcus*.

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**Case 5**

Undereye Papule

A six-year-old boy presents with a two-month history of a papule under his right eye.

What is your diagnosis?

- a. Stye (hordeolum)
- b. Epidermal inclusion cyst
- c. Molluscum contagiosum

Answer

Molluscum contagiosum (MC) (**answer c**) is a common cutaneous viral infection that usually affects children. MC presents with pearly, flesh-coloured papules that often appear translucent with a small central depression. Although single lesions may occur, MC most often presents with numerous clustered papules, and linear configurations may be present. Transmission is via skin-to-skin contact. Affected areas are usually intertriginous folds. The spontaneous clearing of MC can take several years, and, thus, treatment is usually requested. Treatments include cantharidin, which induces vesiculation of the epidermis upon application to human skin as well as cryotherapy.

An epidermal inclusion cyst is a discrete, slow-growing nodule that may appear any time after puberty and most commonly presents on the face, scalp, neck, trunk, or scrotum. They are usually asymptomatic and extrude foul-smelling debris material through a central punctum. They present as flesh-coloured-to-yellowish, firm, round nodules of variable size.



A stye (hordeolum) is an acute localized infection of the eyelid margin involving hair follicles of the eyelashes or meibomian glands. It is usually painful and erythematous, and the eyelid may also be edematous. For external hordeola, purulent material exudes from the eyelash line, while internal hordeola suppurate on the conjunctival surface of the eyelid. In the majority of cases *Staphylococcus aureus* is the infectious agent.

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Case 6

Linear, Raised Lesions

A five-month-old female presents with linear, raised lesions following stroking of the skin.

What is your diagnosis?

- Mastocytosis
- Dermatographism
- Linear epidermal nevus

Answer

Dermatographism (**answer b**) is a common phenomenon in infants, occurring in approximately 50% of children. It tends to decrease with age, and, as such, it is only noted in approximately 1% of adolescents. Dermatographism, also known as dermographism or the triple response of Lewis, is one of the physical types of urticaria. It is characterized by a sharply localized, edematous or wheal reaction with an area or surrounding erythema. This reaction occurs exactly at the site of firm stroking of the skin, within seconds to minutes of the stimulation. Typically, the response reaches maximal intensity at about six minutes and persists for about 15 minutes.

Mastocytosis refers to a group of disorders characterized by the accumulation of mast cells in the skin, and possibly other areas of the body. Mastocytosis may be congenital, and ~55% of patients have an onset of mastocytosis before two-years-of-age. The clinical spectrum includes mastocytomas (single or multiple), urticaria pigmentosa, bullous mastocytosis, diffuse cutaneous mastocytosis, and telangiectasia macularis eruptiva perstans (TMEP). The diagnosis is aided by Darier's sign, a phenomenon that consists of localized erythema and urticarial wheals at the site of the lesion(s) following gentle mechanical irritation.



Darier's sign is positive in greater than 90% of mastocytosis but is most often negative in those mastocytic lesions that are completely flat at baseline.

A linear epidermal nevus, also known as an inflammatory linear verrucous epidermal nevus, presents as erythematous, scaly, and verrucous papules, which coalesce into linear plaques as part of a chronic pruritic process. Lesions often present at birth or early childhood and most often affect an extremity. Linear epidermal nevi have a chronic, intermittent course and are resistant to therapy. Topical corticosteroids may reduce inflammation and pruritus, but lesions usually recur.

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Case 7

Multiple, White Papules

A 10-day-old infant presents with multiple white papules on his nose that were present at birth. The infant is otherwise healthy.

What is your diagnosis?

- a. Neonatal pustular melanosis
- b. Miliaria crystallina
- c. Milia
- d. Infantile acropustulosis

Answer

Milia (answer c) typically present as 1 to 2 mm white to yellow papules. They are present in approximately 40% of newborn infants. The lesions are most commonly found on the nose, chin, cheeks, and forehead. They are epidermal cysts caused by retention of keratin and sebaceous material in the pilosebaceous follicles. Milia tend to resolve spontaneously in the first few weeks of life.

Miliaria crystallina is caused by accumulation of sweat underneath eccrine sweat ducts that are obstructed by keratin. It is characterized by small, thin-walled vesicles appearing like dewdrops. It rarely presents at birth but often develops during the first week of life with exposure to warm climates.

Neonatal pustular melanosis may be categorized into three types of lesions: small pustules, erythema-



tous macules, and hyperpigmented macules. It often occurs in full-term black infants.

Infantile acropustulosis is characterized by chronic or recurrent pruritic vesiculopustular or pustular lesions, mainly on the hands and feet. The onset is usually between 2- and 10-months-of-age. It typically resolves within two years.

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Case 8

Pigmented Lesion on the Back

A 55-year-old, otherwise healthy male presents with a pigmented lesion 1 cm in diameter on his back that was first noticed by his wife four months ago.

What is your diagnosis?

- a. Dysplastic nevus
- b. Pigmented seborrheic keratosis
- c. Benign nevus
- d. Melanoma
- e. Spitz nevus

Answer

This patient has melanoma (**answer d**). The management and outcome depend on the depth and stage at presentation. Patients presenting with a suspicious pigmented lesion are recommended to undergo a prompt, full-thickness excisional biopsy. Surgical margins for definitive wide local excision are determined by the pathological Breslow thickness of the lesion at its thickest point.

Excisional biopsies may be inappropriate for lesions on the face, on the volar aspect of the hand or foot, near the fingernail, or for very large lesions in general. For these cosmetically sensitive areas, an initial punch or full-thickness incisional biopsy may be performed; however, if it is found to be positive



for melanoma, a subsequent excisional biopsy should be completed to determine the lesion's deepest Breslow thickness.

A shave biopsy is never an acceptable option for a lesion suspected to be melanoma, because the lesion may then be left distorted, thereby making it impossible to determine the deepest Breslow thickness with a subsequent excisional biopsy.

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