



This month – 14 cases:

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Case 1

Lesion on the Nose

A 70-year-old female with dementia presents with a lesion on her nose that was treated years ago but seems to have recurred.

What is your diagnosis?

- Angiofibroma
- Amelanotic melanoma
- Basal cell carcinoma
- Squamous cell carcinoma
- Bowen's disease

Answer

Basal cell carcinoma (BCC) (answer c) is the most common cancer and occurs in areas of chronic sun exposure, especially the nose. It is a slow-growing malignancy that rarely metastasizes; however, it can result in significant local destruction if mismanaged. BCCs are rare in individuals with darker skin, and they most commonly occur in the elderly. Risk factors include fair skin, tendency to freckle, large amount of sun exposure, excessive use of tanning beds, previous radiotherapy, phototherapy, male sex, and genetic predisposition.

Patients often present with a nonhealing sore in a sun-exposed site, such as the face, ears, scalp, neck, or



upper trunk. Bleeding is often reported from minor trauma, such as washing and drying one's face. Patients often reveal a history of chronic recreational or occupational sun exposure.

Choice of therapy is based on a number of factors. Surgical methods most commonly employed are curettage and electrodesiccation, surgical excision, and Mohs micrographic surgery.

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**Case 2**

Red Papules on the Arms

A 14-year-old boy presents for a routine checkup and complains of small red papules on both arms and thighs. The rash is not painful or itchy, and he is otherwise in good health.

What is your diagnosis?

- a. Acne
- b. Folliculitis
- c. Keratosis pilaris
- d. Lichen spinulosus

Answer

Keratosis pilaris (**answer c**) is a disorder of keratinization of the infundibulum of pilosebaceous follicles that results in horny plugs that fill the follicular orifice. It is a benign condition and is estimated to affect approximately 40% of the adult population and 50 to 80% of all adolescents. Those with very dry skin or pre-existing atopic dermatitis appear to be at increased risk. The condition may be worse in the winter with improvement during the summer months. The exact cause is not known. An autosomal dominant mode of inheritance with incomplete penetrance has been postulated. The high prevalence and intensity seen at puberty suggests a hormonal influence.

Clinically, keratosis pilaris presents as minute, discrete, keratotic, follicular papules with variable perifollicular erythema. Excess keratin surrounds and entraps the hair follicle giving the rash a raised appearance that is rough to the touch. The affected skin looks like gooseflesh and feels like sandpaper. These lesions are not pruritic and can not be extruded with application of



pressure. The keratin plugs are not painful and may be localized or widespread; however, they are most typically found on the lateral aspects of the upper arms and legs. Keratosis pilaris may also present on the face and can be easily mistaken for acne.

Keratosis pilaris is a benign condition and treatment is usually undertaken for cosmetic reasons. Treatment options include moisturizing the skin with lotions and applying keratolytic creams containing urea, tretinoin, or salicylic acid. Improvement may not be seen for several months and the lesions are likely to recur.

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Case 3

Slowly Growing Lesion

This 35-year-old man has had a slowly growing lesion on his posterior thigh, since childhood. It is asymptomatic.

What is your diagnosis?

- a. Melanoma
- b. Dermatofibroma
- c. Desmoplastic dermal Spitz nevus
- d. Dermatofibrosarcoma
- e. Hemangioma

Answer

A desmoplastic dermal Spitz nevus (**answer c**) usually appears as a reddish-brown papule or nodule on the extremities and, more rarely, on the torso or head and neck region.

Usually, they are single lesions that first appear in childhood. They are slightly more common in females and are relatively uncommon.

This lesion may be misdiagnosed as a dermatofibroma because of its appearance and location. It is best



excised for pathological confirmation to exclude a melanoma, or in a child to rule out a more aggressive Spitz variant. This variant is not aggressive.

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Case 4

Umbilicated Papules on the Chin

An 11-year-old boy presents with pearly-pink, umbilicated papules over his chin and neck.

What is your diagnosis?

- a. Verruca vulgaris
- b. Herpes simplex
- c. Keratoacanthoma
- d. Molluscum contagiosum

Answer

This boy has molluscum contagiosum (**answer d**). Molluscum contagiosum is a disease caused by a poxvirus of the Molluscipoxvirus genus that produces a benign, self-limited papular eruption of multiple umbilicated cutaneous tumours. This common viral disease is confined to the skin and mucous membranes.

Transmission requires direct contact with infected hosts or contaminated fomites. The infection is found worldwide and has a higher incidence in children, sexually active adults, and those who are immunodeficient. Eruptions in immunocompromised individuals are very resistant to treatment. The disease is spread by contact, including sexual transmission or sharing towels. The dome-shaped papule, a few millimeters in diameter, has a punctum and, if squeezed, releases a cheesy material.

The lesions are usually multiple and grouped and are most common on the face, neck, and trunk.



Most of the common treatments consist of various means to traumatize the lesions (cryosurgery, curettage, evisceration). Antiviral and immune-modulating treatments have recently been added to the options.

For patients with impaired immune functions with widespread and potentially disfiguring eruptions, the usual local destructive therapies are ineffective; antiviral and immunomodulatory medications have been more successful.

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Case 5

Scaly, Round Plaques

A six-year-old girl presents with a three week history of well-demarcated, scaly, erythematous, round plaques over her entire body. In particular, one over the arm is linear.

What is your diagnosis?

- a. Lichen planus
- b. Guttate psoriasis
- c. Pityriasis rosea
- d. Pityriasis rubra pilaris

Answer

Guttate psoriasis (answer b) generally affects children and young adults and is often the first manifestation of psoriasis. It is characterized by drop-like, round papules distributed over the trunk and extremities. The usual etiology is triggered by a group A streptococcal infection of the oropharynx or perianal area, with the majority of patients having a history of an upper respiratory tract infection one to three weeks before the onset of an acute flare of the disorder.

Lichen planus is a common skin condition that is characterized by small, shiny, polygonal, flat-topped, violaceous papules. Affected areas include the flexural surfaces of the lower legs, ankles, wrists, genitalia, lower back, face, and mucous membranes. The lichen planus is generally pruritic and is diagnosed clinically. Spontaneous resolution usually occurs in 8 to 15 months; however, most patients have the lesion turn into an area of hyperpigmentation that may persist for months to years. Treatment generally requires topical corticosteroids.

Pityriasis rosea is an acute, benign, self-limiting disorder characterized by a single, isolated, finely scaled,



slightly elevated lesion, called a “herald patch,” which is found most commonly on the trunk, upper arms, neck, or thigh and resembles a “Christmas tree.” After an interval of 2 to 21 days, an eruption of smaller papules appears, often affecting the trunk. It is common to have postinflammatory hypopigmentation or hyperpigmentation that may persist for weeks to months after clearance of the pityriasis rosea.

Pityriasis rubra pilaris (PRP) is a chronic skin disorder that is characterized by hyperkeratotic yellowing of the palms and soles and small red follicular papules that merge to form scaling plaques and confluent areas of erythema with surrounding islands of normal skin. PRP may be inherited as an autosomal dominant disorder.

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Case 6

Expanding Area of Pigmentation

This 80-year-old man first noted pigmentation of his cheek five years earlier. It has been expanding slowly ever since.

What is your diagnosis?

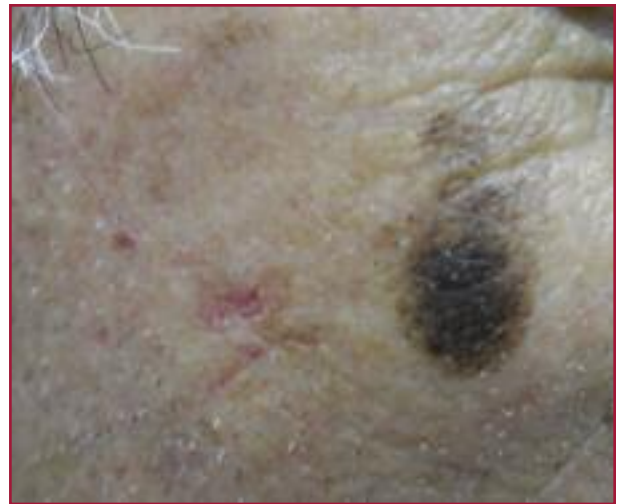
- a. Dysplastic nevus
- b. Melanoma
- c. Lentigo maligna
- d. Pigmented seborrheic keratosis
- e. Blue nevus

Answer

A lentigo maligna (**answer c**) usually begins as a pigmented spot in an area of significant sun damage, such as the malar ridge. It gradually expands with variations of shading. Peripheral growth may continue for 5 to 20 years before invasion occurs.

At times, such lesions are called melanomas in situ, as the cells are arranged singly or in nests along the dermal-epidermal junction or above without evidence of invasion, which indicates a favourable prognosis. The clinical appearance can be variable as shown.

As the irregularity and depth of proliferation is not uniform, there are significant pitfalls in sites chosen for



biopsy as well as the width of the excision.

Adjuvant therapy with topical imiquimod can be considered to reduce the number of “stray” cells after excision, and, at times, it can be used as the primary therapy when the location of the lesion or the precarious health of the patient is a factor.

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**Case 7**

Red Spots on the Periorbital Skin

A 13-year-old female presents with two red spots on the right periorbital skin. The lesions blanch on pressure but refill. There is no family history of telangiectasias. She is otherwise healthy and has no history of nosebleeds or visceral bleeding.

What is your diagnosis?

- a. Hereditary hemorrhagic telangiectasia
- b. Ataxia telangiectasia
- c. Infantile hemangioma
- d. Pyogenic granuloma
- e. Spider angiomas

Answer

Spider angiomas (**answer e**) are telangiectasias characterized by a central dilated arteriole with symmetrically radiating vascular extensions. The central arteriole presents as a red papule that blanches with pressure and refills from its centre peripherally. Spider angiomas are most often found on the face, upper trunk, arms, hands, and fingers. They are associated with high circulating estrogen, which may be the result of liver disease, pregnancy, or estrogen therapy; however, spider angiomas may also be idiopathic and present in healthy children and adults. They may resolve spontaneously, but more often persist, in which case they may be treated with electrocoagulation or pulsed dye laser therapy.

Hereditary hemorrhagic telangiectasia is an inherited vascular disorder that most often presents with telangiectasias and clinical manifestations of bleeding diathesis. The telangiectasias are most common on the lips, ears, oral cavity, palms, fingers, soles, and nasal mucous membranes.

Ataxia telangiectasia is another inherited vascular disorder consisting of telangiectasia, cerebellar ataxia,



and immunodeficiency. Lesions occur on sun-exposed sites, such as the face, neck, arms, and chest, as well as in the bulbar conjunctivae. In these patients, the ataxia precedes the telangiectasia.

Infantile hemangiomas are vascular tumours that most often occur on the head and neck. They are not fully compressible. They typically grow until the child is 9- to 12- months-of-age, then involute through childhood.

Pyogenic granulomas are acquired vascular tumours that form in trauma-prone areas, such as the hands, forearms, and face. They usually present as solitary papules or nodules and may ulcerate or bleed.

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**Case 8**

Red, Occasionally Bleeding Plaque

A 37-year-old male taking isotretinoin for chronic, severe acne developed a red plaque on his finger that occasionally bleeds. It is nontender and nonpruritic, and he has never had this before. He has tried polysporin with some modest benefit.

What is your diagnosis?

- a. Pyogenic granuloma
- b. Angiofibroma
- c. Renal cell carcinoma metastasis
- d. Cherry hemangioma
- e. Hemangioma of infancy

Answer

A pyogenic granuloma (**answer a**) is a relatively common growth in response to localized irritation or trauma. It is a misnomer, since it is neither infectious or granulomatous. Pyogenic granulomas are more common in young adults, in women, during pregnancy, and in patients on retinoids or protease inhibitors.

Early lesions bleed easily (very annoying to patients) due to extreme vascularity and rapid growth, which can cause significant concern. If left alone, these soft tumours can turn into fibromas. Pyogenic granulomas typically present as smooth or lobulated (in this case), red-to-purple masses that may be pedunculated or sessile. As lesions mature, vascularity decreases, and they become more pink



in colour. They vary in size from a few millimeters to several centimeters, and they are painless.

If a clear provoking traumatic factor exists, such as one caused by medication, the pyogenic granulomas may regress upon withdrawal of the causative agent. Similarly, lesions associated with pregnancy may resolve on their own after delivery. Otherwise, surgical or laser removal is often curative. If a shave biopsy is performed, curettage with electrodesiccation to the base decreases the likelihood of recurrence.

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Case 9

Ulcerating Chest Wall

A 73-year-old female, with increasing shortness of breath, was noted to have a large ulcerating chest wall mass and satellite lesions in the axilla upon physical examination. She is afebrile and her whole blood cell count is normal.

What is your diagnosis?

- a. Leishmaniasis
- b. Cutaneous T-cell Lymphoma
- c. Sarcoidosis
- d. Fungating breast carcinoma
- e. Hansen's Disease

Answer

Fungating breast carcinoma (**answer d**) is an advanced stage breast cancer that is characterized by an ulcerating lesion with signs of necrosis, and it is often accompanied by a foul odour if presenting with a concurrent infection.

Initial management includes IV fluid management, pain management, biopsy of the edges of the ulcer and satellite lesions, and CT scans of the chest, abdomen, and pelvis to look for likely bone



metastasis. Options for treatment at this stage include palliative radiation and chemotherapy. Evaluation for HER2 over-expression is also recommended.

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Case 10

Yellow, Discoloured Skin

A 10-month-old boy presents with a yellow discolouration of the skin, which is more prominent on the cheeks, palms, and soles. The yellow colour is more pronounced under artificial light. His sclerae are normal.

What is your diagnosis?

- a. Jaundice
- b. Mepacrine ingestion
- c. Lycopopenia
- d. Carotenemia

Answer

Carotenemia (answer d) is a clinical condition that presents with yellow pigmentation of the skin and an increased carotene level in the blood. The usual cause is prolonged consumption of carotene-rich foods, such as carrots, squash, and sweet potatoes. In general, the carotene content of a food is higher when the fruit or vegetable has a deeper shade of green or yellow. The absorption of β -carotene is greater with foods that are particulate in size, such as pureed baby foods. This is an important factor in the pathogenesis of carotenemia.

Carotenemia is usually a benign condition, but it can be associated with diabetes mellitus or hypothyroidism. It is most likely to be confused with jaundice. In jaundice, the pigmentation is diffuse, the



sclerae are the first places to be affected, and the colour is more obvious in natural light.

Lycopopenia is due to excessive ingestion of foods high in lycopene content, such as tomatoes and beets. Excess ingestion of mepacrine, an antiprotozoal agent, can produce a yellow pigmentation of the skin and sclerae.

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Case 11

Asymptomatic Rash on the Chest

This 16-year-old boy has developed this asymptomatic rash on his chest over the past two years.

What is your diagnosis?

- a. Pseudoacanthosis nigricans
- b. Darier's disease
- c. Confluent and reticulated papillomatosis
- d. Tinea versicolor
- e. Seborrheic dermatitis

Answer

Confluent and reticulated papillomatosis (CARP) (answer c) is a fairly rare condition that appears during, or shortly after, puberty. It is more common in females and in darker skinned individuals. Most cases are sporadic. The primary lesions are 1 to 2 mm papules, appearing in the intermammary area, but they often involve the upper torso and upper midriff and, at times, the mid-back regions. The papules will enlarge and coalesce, giving a darker appearance where they are most confluent in the mid-chest area and where they are more reticulated peripherally. Attempts have been made to link this condition to disorders of keratinization or endocrine, infections, and fungal or bacterial causes, but there is no consistent relationship with any of these.



Tinea versicolor can be confused with CARP. Occasionally *Malassezia furfur* has been isolated, but the condition does not respond to topical or oral antifungals.

The most consistent improvement comes from oral macrolides or the tetracycline family of drugs. Most often, minocycline, taken for four weeks, is helpful, but, while some people will remain clear for a prolonged period of time, there is usually a recurrence in 18 months.

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Case 12

Bumps on the Abdomen

A 12-year-old girl presents to your office with a one year history of bumps on her right abdomen. The lesions are asymptomatic. She has multiple flat-topped flesh-coloured papules that follow a curvilinear pattern on her right abdomen. The lesions do not cross the midline.

What is your diagnosis?

- a. Incontinentia pigmenti
- b. Inflammatory linear verrucous epidermal nevus
- c. Lichen striatus
- d. Linear morphea

Answer

This patient has lichen striatus (answer c). The cause of this skin eruption is unknown; however, it is benign, following an asymptomatic and self-limited course. The curvilinear eruption follows Blaschko's lines, which represent pathways of epidermal cell migration and proliferation during the development of the fetus. Females are three-times more likely to develop lichen striatus. In dark skinned individuals, the lesions can be scaly or present with hypopigmentation.

Patients will likely experience spontaneous resolution of the eruption within 3 to 12 months, although at times, lichen striatus can persist up to several years. Once the primary lesions disappear, patients often experience hypopigmentation at the site. These skin changes also typically resolve with time. No therapeutic intervention is indicated. If there is associated pruritus, it is not unreasonable to consider applying a mid-strength topical corticosteroid, though this therapy will not accelerate resolution.



Incontinentia pigmenti presents as a vesicular rash at birth that evolves into verrucous papules. Over time, these papules resolve leaving hyperpigmentation that eventually becomes hypopigmented.

Inflammatory linear verrucous epidermal nevus has a similar appearance to lichen striatus, yet this condition is typically very pruritic and presents at birth or in early childhood.

Linear morphea often presents in this age group, it is often unilateral and can follow Blaschko lines. However, lesions of linear morphea often demonstrate induration, and the skin is sunken down, rather than raised. Often, atrophy that can affect underlying fascia, muscles, and bone is present. Systemic symptoms like arthralgias can also be present.

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Case 13

Hypopigmentation on the Trunk

A two-year-old boy is noted to have an area of hypopigmentation on his trunk. He is asymptomatic and is otherwise in good health. His 28-year-old mother has Hashimoto's thyroiditis.

What is your diagnosis?

- a. Pityriasis alba
- b. Vitiligo
- c. Hypomelanosis of Ito
- d. Tuberous sclerosis complex

Answer

Vitiligo (**answer b**) is an acquired skin disorder characterized by depigmented macules/patches as a result of the loss of functional cutaneous melanocytes. The amelanotic macules/patches typically appear chalk- or milk-white. Lesions often show homogeneous depigmentation and are well demarcated.

Pityriasis alba is characterized by hypopigmented, round or oval macules or patches with indistinct margins. The lesion appears mainly on the face, especially the cheeks.

Hypomelanosis of Ito is characterized by seemingly bizarre, macular, hypopigmented streaks, stripes, whorls, and patches that conform to Blaschko lines. The lesions always involve more than two body segments.



The most common dermatologic manifestations of tuberous sclerosis complex are hypopigmented macules with an elliptical shape (ash-leaf spots). Other cutaneous manifestations include facial angiofibromas, shagreen or “leather” patches, periungual and unguinal fibromas, and café au lait spots.

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Case 14

Pruritic, Skin-coloured Papules

A 56-year-old lady presents with developed, multiple, pruritic skin-coloured papules on her forehead, trunk, and limbs. She suffers from fibromyalgia for which she has been on pregabalin for a few years.

What is your diagnosis?

- a. Erythroderma
- b. Necrobiosis lipoidica
- c. Disseminated granuloma annulare
- d. Lichenoid dermatitis

Answer

Disseminated granuloma annulare (GA) (**answer c**) is a disease of unknown etiology, characterized by focal degeneration of collagen with surrounding areas of reactive inflammation and fibrosis.

GA can occur at any age, with female predominance. Familial cases occur infrequently. The most common form of GA is localized GA, but four relatively uncommon types can present; they are generalized or disseminated GA, linear GA, subcutaneous nodular GA, and perforating GA.

Generalized or widely disseminated GA presents clinically as predominantly annular lesions in 67% of cases and as non-annular lesions in 33% of cases. They are occasionally pruritic.

The age of onset is bimodal, with 80% appearing in the fourth to seventh decade of life and 20% before 10-years-of-age.



There is no known cause for GA, although it has been reported to occur following skin bites, sun exposure, tuberculin skin tests, trauma, photochemotherapy therapy, and viral infections (including Epstein-Barr virus, HIV, and herpes zoster) have been associated with the occurrence of GA.

GA usually spontaneously resolves and no therapy is needed; lesions often disappear following biopsy or minor trauma.

For disseminated disease, a short burst of systemic corticosteroids can be helpful.

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