



This month – 7 cases:

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Case 1

Hypopigmented Area on the Chest

During this man's yearly physical examination, an asymptomatic hypopigmented area was noticed on his chest. He does not remember how long he has had it. He is fit and healthy and not on any regular medications.

What is your diagnosis?

- Pityriasis versicolor
- Post-inflammatory hypopigmentation
- Vitiligo
- Nevus anemicus

Answer

Nevus anemicus (answer d) is characterized by its white appearance, which is due to a paucity within the lesion, secondary to permanent vasoconstriction.

This vasoconstriction occurs as a result of hypersensitivity to normal levels of circulating catecholamines. Vitiligo may look similar, but is whiter than nevus anemicus and the edges cannot be obliterated with pressure. In addition, Wood's light accentuates vitiligo, but it makes the nevus anemicus invisible.



This uncommon, congenital, white patch occurs most commonly on the trunk. The border is irregular and sharply demarcated, but it can be obliterated by blanching the surrounding skin. It seems to be more common in females and may be seen in association with port wine stains.

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Case 2

Recurrent Hand Eruptions

This 25-year-old woman has had recurrent eruptions on her hands for 15 years. There has been an associated sore on her lip on some occasions.

What is your diagnosis?

- a. Drug reaction
- b. Granuloma annulare
- c. Erythema multiforme minor
- d. Urticaria
- e. Arthropod bite sensitivity

Answer

Erythema multiforme minor (EM), (**answer c**) is a self-limited recurrent disease that usually affects young adults, and it generally lasts for one to four weeks. It begins as erythematous macules that become raised, edematous papules over a 24 to 48 hour period. Lesions expand to several centimeters in size, typically in the configuration of a ring. The centre may be purpuric or darker, giving the appearance of a target or iris. Target-like lesions are especially seen on the palms and the soles. Lesions generally appear on hands, feet, elbows, and knees. In 10% of patients, they are more widespread and may involve mucosal surfaces.

Erythema multiforme minor is usually associated with herpes simplex virus (HSV) infections (type 1 or 2), which may precede the EM eruption by one to three weeks. Not all HSV outbreaks cause EM, nor is a visible herpes sore always present. Other variants of EM are often drug related and are therefore more severe. Preventing outbreaks of HSV is the main approach to this problem, and it is achieved by limiting irritants and through the use of sunscreen on the lips. If outbreaks



are infrequent and the patient can recognize early symptoms and signs of HSV, then an oral antiviral can be used as required. If attacks are frequent year round, then suppressive treatment is needed.

As EM runs a self-limited course, oral prednisone is generally not recommended because results are inconsistent and may theoretically aggravate the HSV infection.

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



Case 3

Deep, Tender Lesions on the Trunk

A 34-year-old female presents with deep, tender lesions on her trunk that flared after a recent pregnancy.

What is your diagnosis?

- a. Acne vulgaris
- b. Acne rosacea
- c. Guttate psoriasis
- d. Epidermoid cysts
- e. Acute generalized exanthematous pustulosis

Answer

This patient has acne vulgaris (**answer a**). In her case, a hormonal flare is indicated. The etiopathogenesis relates to androgen-mediated sebum production, including obstruction of sebaceous follicle openings, comedone formation, and bacterial colonization of trapped sebum, which results in an inflammatory reaction.

Secondary causes include hyperandrogenism, Cushing's disease, polycystic ovary disease, and congenital adrenal hyperplasia. Acne is classified primarily as comedonal acne (open/black heads and closed/white heads) and inflammatory acne, which includes papules, pustules, nodules, and cysts. Topical treatment options include topical antibiotics, retinoids,



and benzoyl peroxide, which are not likely to be sufficient in this case. Systemic options include oral antibiotics, typically in the tetracycline family, or isotretinoin. Other systemic options in women include oral contraceptive therapy and spironolactone. Other treatment options, though not useful in this particular case, include chemical peels, photodynamic therapy, and laser or light treatments.

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**Case 4**

Elbow and Knee Lesions

A 5-year-old girl who likes playing in sandboxes and on the grass presents in early June with little itchy bumps, 1 to 2 mm in size, on her elbows and knees. She is an otherwise healthy child with no other dermatologic lesions.

What is your diagnosis?

- a. Papular urticaria
- b. Psoriasis
- c. Gianotti-Crosti syndrome
- d. Frictional lichenoid dermatitis
- e. Lichen planus

Answer

Frictional lichenoid dermatitis (**answer d**) is a skin condition that is most commonly found in the spring and summertime among children aged 4- to 12-years, affecting more boys than girls (ratio 3:1). Also known as recurrent summertime pityriasis of the elbows and knees, it has been associated with outdoor activities that involve minor trauma and friction to skin surfaces, such as playing in sandboxes or on the grass. Clinically, lesions are characterized by groups of discrete small papules, about 1 to 2 mm in diameter, and they primarily involve the elbows, knees, and the dorsal surfaces of the hands. These lesions may be associated with hypopigmentation and pruritis and tend to be more prevalent in atopic children. The management of frictional lichenoid dermatitis involves avoiding frictional trauma to the affected areas in addition to the use of topical corticosteroids and emollients.

While papular urticaria is also most commonly found in the spring and summer, it is an unlikely diagnosis in this case, because those lesions are usually larger in size, ranging from 3 to 10 mm. In addition, since papular urticaria is caused by a hypersensitivity to insect bites, there is often a central punctum in each lesion, which is not found in lesions of frictional lichenoid dermatitis.



Similarly, lichen planus lesions are also typically larger papules, ranging from 2 mm to 1 cm in diameter, making this diagnosis less likely. In addition, while lesions of lichen planus can present on the flexor surfaces of the lower legs, they are not usually found on the elbows and may also be found in other areas, such as the ankles, wrists, genitalia, lower back, face, and mucous membranes.

While psoriasis lesions usually affect the elbows and knees as well, they may also affect the scalp, lumbosacral, and anogenital areas. In addition, while these eruptions may begin as small papules, they often have characteristic silvery scales and classically unite to form larger plaques, greater than 1 cm in size. Nail and hair changes may also be found in psoriasis, which are not seen in frictional lichenoid dermatitis.

Gianotti-Crosti syndrome, also known as papular acrodermatitis of childhood (PAC), is another skin condition that predominantly affects children aged 1- to 6-years-of-age. However, these lesions are often distributed over the face in addition to the extensor surfaces, with occasional involvement of the buttocks, making this diagnosis less likely.

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Case 5

Nonhealing Skin Lesion

A 71-year-old male presents with a nonhealing skin lesion on his right posterior thigh. It has been there for two years.

What is your diagnosis?

- a. Abscess
- b. Kerathoacanthoma
- c. Basal cell carcinoma
- d. Cutaneous leishmaniasis

Answer

Basal cell carcinoma (BCC), (**answer c**) is the most common skin cancer (others being malignant melanoma and squamous cell carcinoma). It is a locally invasive tumour with low metastatic potential.

More than two-thirds of BCC occurs on the face. It is diagnosed by histologic confirmation.

Surgical therapy includes curettage and electrodesiccation, excision, and cryosurgery. The first two methods are more widely used.

Local therapy can be used for low risk BCCs. This involves application of 5-fluorouracil or imiquimod over the course of several weeks.

Radiation therapy is an effective option for treatment and is cosmetically appealing. It is a noninvasive,



but expensive, option. It can be used in patients who are not good surgical candidates or postsurgery to treat patients whose tumours are not completely excised with clear margins.

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Case 6

White Patches on the Arms

A 35-year-old Hispanic female presents with well-defined white patches with fine scales on her arms. The patient denies that these patches are itchy or tender and claims that her daughter has the same patches on her trunk and arms.

What is your diagnosis?

- a. Pityriasis (tinea) versicolor
- b. Contact dermatitis
- c. Vitiligo
- d. Psoriasis

Answer

Pityriasis (tinea) versicolor (**answer a**) is a superficial fungal infection caused by the dimorphic lipid-dependent yeast, *Malassezia furfur*. *M. furfur* acts as an opportunistic organism under favourable conditions, such as a warm, moist climate or a weak immunosuppressive state in the host. Pityriasis versicolor occurs when the yeast form of the organism converts to the hyphal form. The lesions appear as asymptomatic to mildly pruritic, well-demarcated, oval macules mainly distributed on the upper trunk and upper arms. Involvement of lower trunk, groin, and proximal lower extremities can occur. The macules are usually light brown on untanned skin and hypopigmented on tanned skin. The eruption varies in colour from patient to patient, but each person's lesions are of a single hue. The lesions can be finely scaled.

The diagnosis is usually clinical. If necessary, the diagnosis can be confirmed by direct examination of scrapings from the border of a lesion with a potassium hydroxide wet mount preparation, which shows numerous short, stubby hyphae intermixed with clusters of spores (the "spaghetti and meatballs"



appearance). Wood's lamp examination may show yellowish-gold fluorescence. Some lesions do not fluoresce.

Infection can persist chronically if not treated. Topical therapies, including selenium sulfide or ketoconazole shampoo daily for one week or azole cream (e.g., clotrimazole) twice a day for two weeks, are effective. Oral ketoconazole, fluconazole, or itraconazole may be appropriate for patients with extensive disease, frequent recurrences, or disease that is refractory to topical therapy. Dyspigmentation often persists despite treatment.

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Case 7

Asymptomatic Lesion on the Penis

This 30-year-old gentleman suddenly noted a lesion on the ventral aspect of his penis. It is asymptomatic.

What is your diagnosis?

- a. Koebner lesion of psoriasis
- b. Median raphe cyst
- c. Herpes progenitalis
- d. Thrombosed vein
- e. Urethral sinus

Answer

Median raphe cyst (**answer b**) is made up of tissue very similar to an apocrine hidrocystoma. They usually are a few millimeters in width and may extend up the entire length of the ventral penile shaft. They occur in a younger age group, usually without any provocation.

While they can be drained like any cyst, they tend to refill; therefore, excision or cauterization of the length of the tract may be required.



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