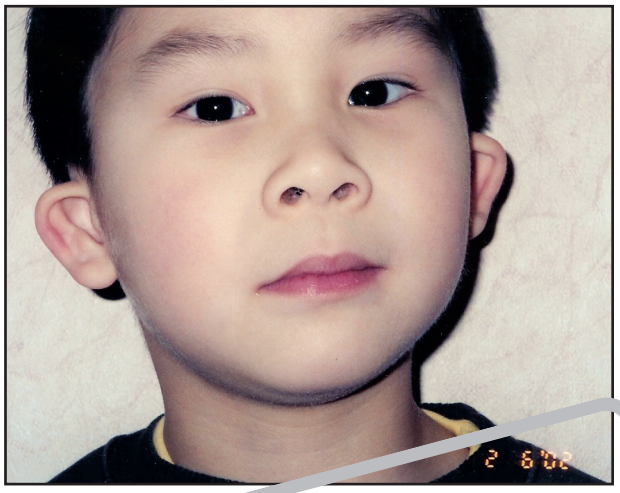
This month–9 cases:

1. *Protruding Ears*
2. *Velvety Patches*
3. *An Orange-Stained Diaper*
4. *A Painless Lump*
5. *Pesky Pustules*
6. *Pigment Problems*
7. *Purplish-Blue Patches*
8. *Sun-Sensitive Skin*
9. *Pearly Papules*

Case 1

Protruding Ears

A mother is concerned that the ears of her 6-year-old son stick out. On examination, the distance from the outer rim of the helix to the mastoid bone is 3 cm bilaterally. The size and shape of the auricles are normal.



What is your diagnosis?

a. Lop ears
b. Protruding ears
c. Cryptotia
d. Stahl ears

Answer

Protruding ears **(answer b)** are defined as auricles with an angle relative to the mastoid bone that is > 40 degrees, or auricles with a distance from the outer rim of the helix to the mastoid bone that is > 2 cm. The superior crus of the antihelix might be absent, or the antihelix might be flattened. A protruding ear has a normal vertical height in contrast to the lop ear, which is smaller than normal.

Lop ear is characterized by varying degrees of turning-down (lidding) of the helix, reduction or absence of the superior crus of the antihelix, reduction of the scapha and reduction in the vertical height of the auricle.

In cryptotia, there is invagination of the upper part of the auricle under the temporal skin. The condition is often associated with anomalies of the auricular cartilage, especially the antihelix and superior crus.

Stahl's ear is characterized by the presence of a third crus, a flat or deformed helix, broad scapha, hypoplasia or absence of the superior crus.

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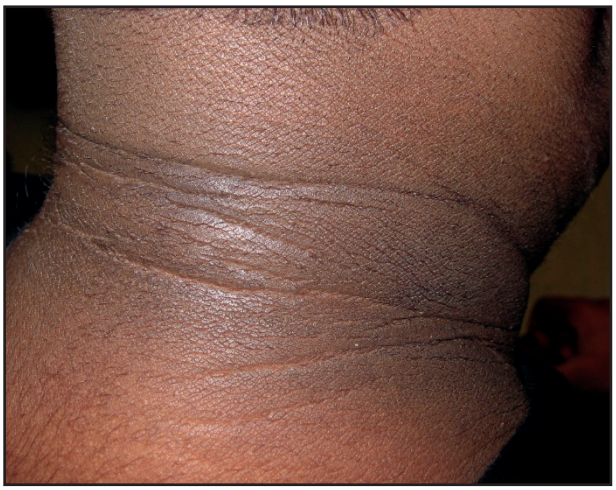
Case 2

Velvety Patches

A 36-year-old Filipino gentleman presents with a longstanding, velvety, dark brown thickening of his neck, axillae and groin. He is bothered by the appearance and cannot seem to scrub it clean.



What is your diagnosis?

a. Confluent and reticulated papillomatosis
b. Post-inflammatory hyperpigmentation
c. Hemochromatosis
d. Melasma
e. Acanthosis nigricans

Answer

This patient has acanthosis nigricans **(answer e)** which presents as hyperpigmented velvety patches on the nape of the neck, axillae and/or groin and less commonly affects the:

- vulva and perineum,
- knuckles,
- inframammary region and
- antecubital fossae.

Various associated causes include:

- an idiopathic hereditary form which begins onsets in childhood, insulin-resistance *(e.g.* diabetes, hyperandrogenism, hypogonadism),
- pseudo-acanthosis nigricans (*e.g.*, obesity, often with multiple skin tags),
- drug-induced (*e.g.*, nicotinic acid, growth hormone therapy, glucocorticoids) and
- malignant (paraneoplastic adenocarcinoma or lymphoma).

Patients should be evaluated for malignancy in adult-onset cases, especially where the patient is not obese. Causes of insulin resistance and hyperandrogenism should also be ruled out.

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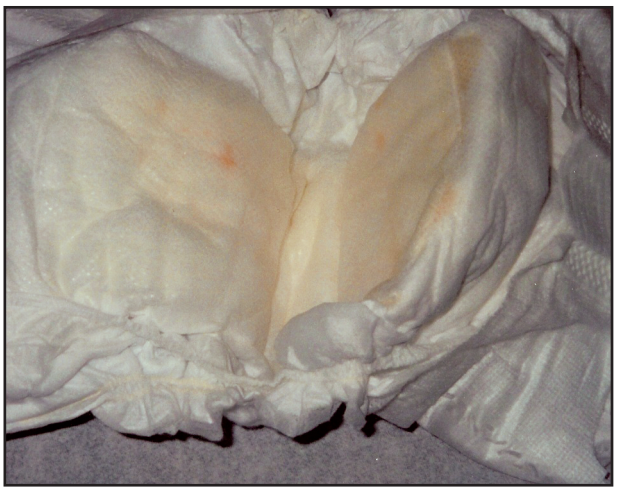
Benjamin Barankin, MD, FRCPC, is a Dermatologist in Toronto, Ontario.

Case 3

An Orange-Stained Diaper

A pinkish-orange stain is noted in the diaper of a 10-day-old infant. The infant is breast fed. There is no history of genitourinary trauma, associated fever, or periorbital edema. The urinalysis revealed a pH of five and was otherwise unremarkable.



What is your diagnosis?

a Hematuria
b. Myoglobinuria
c. Urate precipitation
d. Beeturia

Answer

Urate precipitation **(answer c)** in the urine accounts for the pinkish-orange tinge seen in the diaper. The excretion of uric acid in urine is high at birth and falls during childhood. The solubility of uric acid is about 12 mmol/L at a urine pH of eight, but only 1 mmol/l at a pH of five. As such, acidic urine favours precipitation of uric acid crystals. The high protein content of breast milk favours an acidic urine.

A normal urinalysis excludes hematuria.

The excretion of uric acid in urine is high at birth and falls during childhood.

Myoglobinuria is uncommon in children. The condition might follow excessive:

- muscular activity,
- seizure,
- viral infection,
- muscular dystrophies, or
- ingestion of drugs such as amphetamine.

In myoglobinuria, the urine is dark brown and strongly positive for blood by dipstick, but has only the occasional absence or no red blood cells per high-power field on microscopic analysis.

Beeturia is unlikely in a 10-day-old infant since beets are not a recommended or common source of nutrition during the first year of life.

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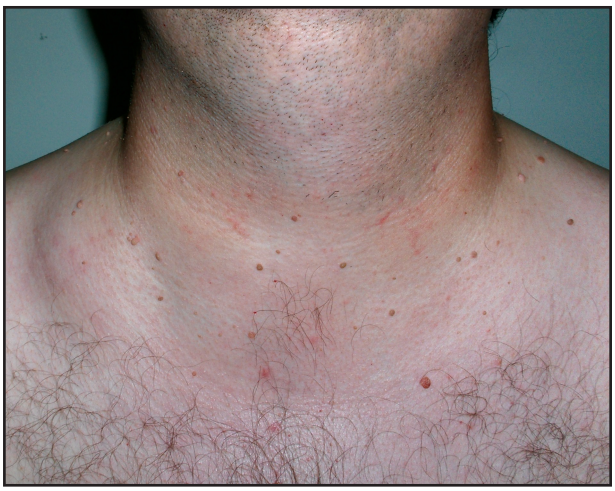
Continued on p. 41

Case 4

A Painless Lump

A 46-year-old gentleman presents with a painless lump, which he felt a week ago. He also complaines of night fever, tiredness and loss of appetite. He is otherwise fit and healthy and is on no regular medications.



What is your diagnosis?

a. Lipoma
b. Sebaceous cyst
c. Cystic hygroma
d. Lymphoma

Answer

Lymphomas **(answer d)** are malignant proliferations of lymphoid tissue. Histology divides into Hodgkin's and non-Hodgkin's types. In the former, characteristic cells with mirror-image nuclei occur (Reed-Sternberg cells).

Symptoms include enlarged, painless nodes (*e.g.* in neck or axillae). In rare instances, there may be alcohol-induced pain due to the mass effects of the nodes. Twenty five per cent of patients have constitutional upset, such as:

- fever,
- weight loss,
- night sweats,
- pruritus and
- lethargy.

The term Pel-Ebstien fever implies an alternating fever with long periods (15 days to 28 days) of normal or low temperature.

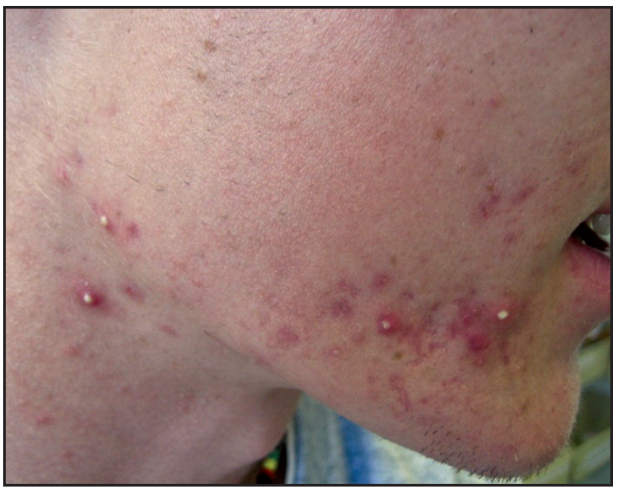
In rare instances, there may be alcohol-induced pain due to the mass effects of the nodes.

Hayder Kubba graduated from the University of Baghdad, where he initially trained as a Trauma Surgeon. He moved to Britain, where he received his FRCS and worked as an ER Physician before specializing in Family Medicine. He is currently a Family Practitioner, Fort McMurray, Alberta.

Case 5

Pesky Pustules

A 21-year-old male presents with pustules that have been present on his neck and jawline for the past year. Use of facial cleansers has made no difference.



What is your diagnosis?

a. Acne vulgaris
b. Acne rosacea
c. Pustular psoriasis
d. Milia cysts
e. Acute generalized exanthematous pustulosis

Answer

This patient has acne vulgaris **(answer a)**, which has a prevalence of approximately 80% in teenagers. The etiopathogenesis which results in inflammatory reactions include:

- androgen-mediated sebum production,
- obstruction of sebaceous follicle openings,
- comedone formation and
- bacterial colonization of trapped sebum.

Secondary causes include:

- hyperandrogenism,
- Cushing's disease,
- polycystic ovary disease and
- congenital adrenal hyperplasia.

Acne is classified primarily as comedonal (open/black heads and closed/white heads) and inflammatory acne which includes:

- papules,
- pustules,
- nodules and
- cysts.

Topical treatment options consist of:

- topical antibiotics,
- retinoids and
- benzoyl peroxide.

Systemic options include oral antibiotics, typically in the tetracycline family, or isotretinoin. Other systemic options in women include oral contraceptive therapy and spironolactone as well as other treatment options, such as chemical peels or photodynamic therapy.

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

Case 6

Pigment Problems

A gentleman requests treatment for an itchy rash which he has had for the last few months. He is fit, healthy and hardly makes visits to his doctor.

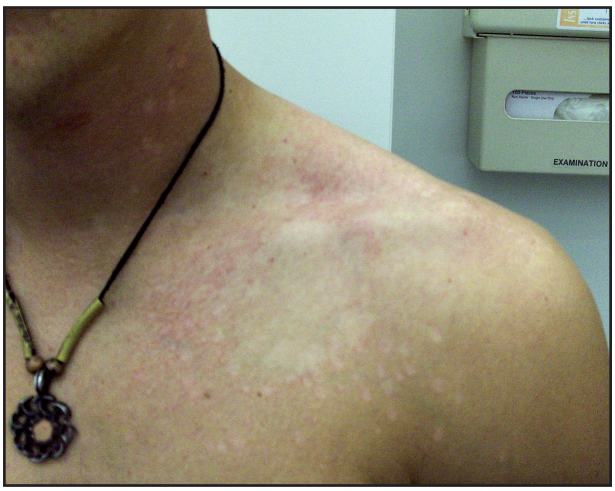
What is your diagnosis?

a. Guttate psoriasis
b. Neurodermatitis
c. Vitiligo
d. Tinea versicolor
e. Pityriasis rosea

Answer

Patients with tinea versicolour (TV) **(answer d)** may complain of mild pruritus. The organism involved, *Malassezia furfur*, needs a warm, moist area high in lipids, so TV often occurs in warmer months or during the winter among patients who engage in vigorous exercise with sweating. TV generally does not occur before puberty. It is characterized by sharply demarcated hyperpigmented, or hypopigmented scaling patches on the trunk, neck, and proximal arms. It is called "versicolour" because the colouring can be whitish, brownish, or even reddish, depending on the normal colour of the patient's skin. The lesions give a fine, brand-like scale with minimal scratching. Patients are often not aware of the condition until they are suntanned and the hypopigmentations caused by TV become more noticeable.

Examination of scales under the microscope using potassium hydroxide shows the characteristic hyphae and budding "spaghetti and meatballs" of TV. The areas fluoresce green with a Wood's light.



There are many treatment regimens for TV. Antifungal creams of the imidazole or allylamines classes all are effective (up to 10 g q.d. of cream is needed treatment). An older regimen is selenium sulfide shampoo, 2.5% q.d. for at least two weeks. Oral antifungals, such as terbinafine 250 mg q.d. for seven days to 10 days, have recently been recommended as effective.

Scaling disappears in a few weeks, but pigmentation does not return to normal for several months. Unfortunately, although TV can be treated very effectively, it can not be cured. Recurrences can occur annually for up to 20 years. Patients should be warned to expect recurrence in summer months or during the winter, especially if they are devoted gym goers.

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Case 7

Purplish-Blue Patches

A 62-year-old woman presents with purplish-blue, irregular patches over her right chest, shoulder and arm. She has had this condition since birth, however, it was previously more red in colour.

What is the diagnosis?

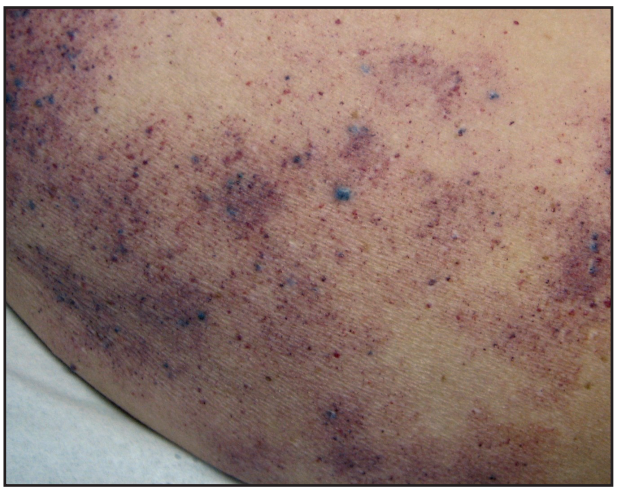
a. Telangiectasia
b. Nevus flammeus
c. Venous lakes
d. Strawberry hemangioma

Answer

This woman has nevus flammeus **(answer b)**. Nevus flammeus is also known as capillary malformation or port wine stain. It is a congenital capillary malformation that affects nearly 25% of all newborns. In 5% of those cases, it tends to persist throughout life.

Although most lesions will fade, ones that persist tend to change over time, which may result in some vascular, nodular outgrowths and the development of a warty surface, as in our patient. The lesions also change from a pink-red to more of a bluish or purple hue.

We attempted to improve the cosmetic appearance of this lesion by electrocautery to the nodular and irregular surface components. It is also important to cauterize areas that are quite vascular due to the risk of spontaneous bleeding.



Although most lesions will fade, ones that persist tend to change over time, which may result in some vascular, nodular outgrowths and the development of a warty surface.

Carrie Lynde is a Second Year Medical Student at the University of Toronto, Toronto, Ontario.

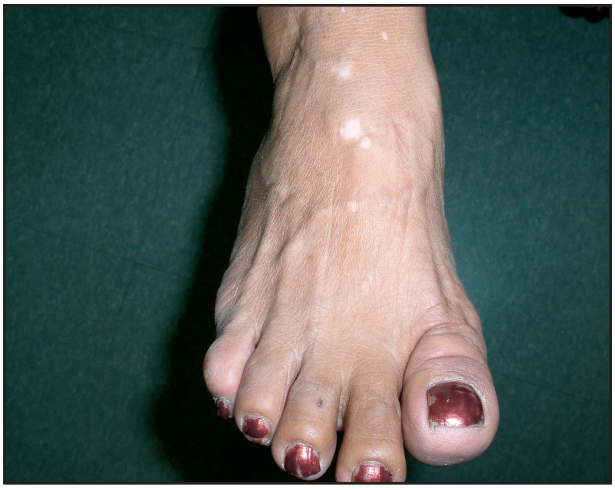
John Kraft, MD, is a First Year Dermatology Resident, University of Toronto, Toronto, Ontario.

Charles Lynde, MD, is an Assistant Professor of Dermatology at the University of Toronto, Toronto, Ontario and has a large dermatology practice in Markham, Ontario.

Case 8

Sun-Sensitive Skin

A women recently registered with our clinic after she moved from Newfoundland and came to enquire about any treatment for the white patches which she has had for a few years. She has used many ointments and creams with no benefit. They are not itchy, but she does not like the way they look.



What is your diagnosis?

a. Post-inflammatory hypopigementation
b. Halo nevus
c. Vitiligo
d. Eczema

Answer

Vitiligo **(answer c)** is usually asymptomatic, but because the depigmented skin is very sensitive to sunlight, patients may complain of sunburn. Periorificial depigmentation is observed early in the course. Acral areas are commonly affected. Depigmented areas are sharply demarcated from adjacent, normally pigmented skin. Vitiligo can begin at any age, but it most commonly begins in adolescence or young adulthood. The disease is believed to be the result of an autoimmune disorder that targets the melanocyte and is not uncommon for patients to have associated autoimmune disorders to such conditions as thyroiditis, pernicious anemia and alopecia areata.

The diagnosis of vitiligo is clinical. Punch biopsy is rarely needed. After the diagnosis is established, patients should be assessed for associated conditions by thyroid function tests and complete blood count.

Therapy for Vitiligo consists of a medium-potent or high-potent topical corticosteroid ointment or cream. Although vitiliginous skin seems less prone to atrophy from topical steroids, reevaluation should occur every four weeks to six weeks and includes a Wood's light examination. Therapeutic response is usually noted within two months to three months and often begins in a perifollicular pattern. Psoralen therapy (PUVA), UVA light combined with oral or topical psoralens (photosensitizing agent) is another approach. PUVA therapy is administered two times to three times weekly in a controlled setting under the direction of a physician. It often takes six weeks to eight weeks to begin to take effect. Sending patients to tanning facilities is not advisable.

Vitiligo is difficult to treat. Because the skin lacks pigment, it is more prone to sunburn. Therefore, sun protection methods and sun blocks should be used. Patients should be regularly assessed for skin cancer regularly.

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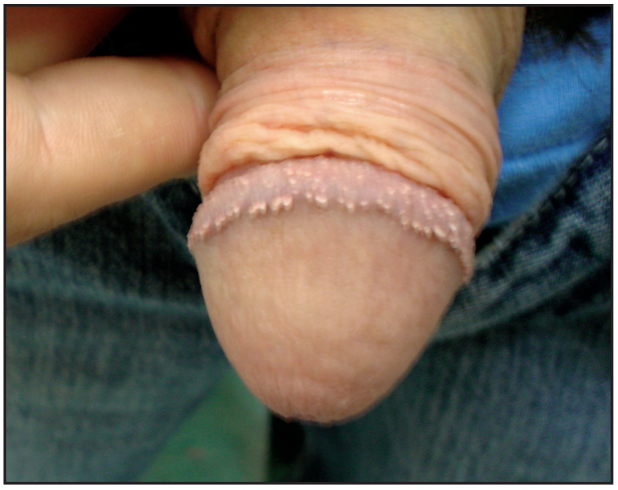
Case 9

Pearly Papules

This 18-year-old male was distressed by the progressive growths appearing on the rim of the glans penis.



What is your diagnosis?

a. Psoriasis
b. Pearly penile papules
c. Genital warts
d. Skin tags
e. Friction papules (masturbation)

Answer

Pearly penile papules **(answer b)** are shiny white or acuminate, closely grouped papules along the proximal edge of the glans penis. They are developmental, without any known provocation. They are quite common in young adults, more so if uncircumcised.

They are seldom of concern when few in number, but can also be numerous and confluent (as in this case).

A major concern is their confusion with condylomata acuminate. They are in fact angiofibromata, benign and not communicable. No treatment is necessary aside from reassurance.

When few in number they are seldom of concern, but can also be numerous and confluent.

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