This month – 8 cases:

Case 1

Black Dotted Plaque

A 23-year-old male presents with an occasionally tender plaque on his plantar toe. He has treated it with various OTC wart remedies with no benefit. It continues to slowly expand.

What is your diagnosis?

a. Verrucous carcinoma
b. Corn
c. Melanoma
d. Plantar wart
e. Flat wart

Answer

Plantar warts **(answer d)** are common hyperkeratotic lesions on the plantar surface due to infection of the epidermal layer by HPV, typically HPV1, 2 or 4. These warts are common over pressure areas such as the heel or ball of the foot. They are occasionally painful when walking and can develop at any age, although children and teenagers are most commonly affected. Many will spontaneously resolve.

Treatment options include OTC preparations such as salicylic acid (in concentrations of 17%, 27% and 40%) which is ideally applied after the wart is pared down (*e.g.*, pumice stone, emory board). Patients should be advised that this is a strong and stubborn virus that often requires many treatments over many months. At the physician's office, cryotherapy is the standard of care and is performed every one to three weeks until the warts clear. Other options include cantharidin, trichloroacetic acid, imiquimod, curettage, electrosurgery, or excision. For those patients asking for natural remedies, oral zinc can be tried.

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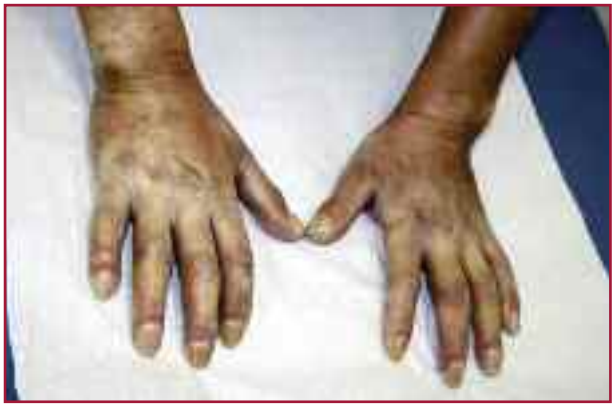
Case 2

Stiff Hands

A 76-year-old male with a long history of different medical problems presents with complaints of both hands stiffness with digital ulcerations



What is your diagnosis?

a. Osteoarthritis
b. Scleroderma
c. Rheumatoid arthritis
d. Reynaud's disease

Answer:

Scleroderma **(answer b)** systemic sclerosis is uncommon connective tissue disease characterized by vascular, inflammatory and fibrotic dysfunction of multiple organ systems.

Characteristic features suggesting presence of scleroderma include: Raynaud's phenomenon, skin thickening, calcinosis and telangectasia. Scleroderma may also associate with serious visceral complications involving the pulmonary, GI, cardiac and renal systems.

Patients commonly present with classic Raynaud phenomenon and typical skin changes. Skin changes usually involve the hands, less commonly the lower limbs. Early changes appear such as skin thickening with puffy, swollen fingers (oedematous phase). Later the skin becomes firm and tightly bound to the underlying subcutaneous tissue (indurative phase). This can lead to flexion contractures which limit hand function. After all, the skin thins and ulcerates easily predisposing to infection of multiple organ systems. Generally scleroderma divided into diffuse and limited subtypes.

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Case 3

Unidentified Lumps

This 38-year-old gentleman recently immigrated to Canada and came to register with a new family physician. He wanted to know if he can have any treatment to these widespread lumps on his body, which started to appear in his childhood. He also has widespread brownish spots all over his body, one of them is showing on the back of the neck.

What is your diagnosis?

a. Lipomas
b. Sebaceous Cysts
c. Neurofibromatosis
d. Neurosarcomas.

Answer

Neurofibromatosis **(answer c)** is a genetically-inherited disease in which nerve tissue grows tumours (*e.g.*, neurofibromas) that may be harmless or may cause serious damage by compressing nerves and other tissues. The disorder affects all neural crest cells (Schwann cells, melanocytes, endoneurial fibroblasts). Cellular elements from these cell types proliferate excessively throughout the body forming tumours and the melanocytes function abnormally resulting in disordered skin pigmentation. The tumours may cause bumps under the skin, coloured spots, skeletal problems, pressure on spinal nerve roots and other neurological problems.

Neurofibromatosis is autosomal dominant, which means that it affects males and females equally and is dominant (only one copy of the affected gene is needed to get the disorder). Therefore, if only one parent has neurofibromatosis, his or her children have a 50% chance of developing the condition as well. Disease severity in affected individuals, however, can vary (this is called variable expressivity). Moreover, in around half of cases there is no other affected family member because a new mutation has occurred.

Because there is no cure for the disease itself, the only therapy for those people with neurofibromatosis is a program of treatment by a team of specialists to manage symptoms or complications. Surgery may be needed when the tumours compress organs or other structures. Less than 10% of people with neurofibromatosis develop cancerous growths; in these cases,chemotherapy may be successful.

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 in Mississauga, Ontario.

Case 4

Widespread Brownish Spots

The 38-year-old gentleman from Case 3 who recently immigrated to Canada said that his father has the same widespread brownish spots that are on his neck, but neither of them had any treatment for these lesions.

What is your diagnosis?

a. *Café-au-lait* spots
b. Vitiligo
c. Melanoma

Answer

Café au lait (CAL) **(answer a)** spots are hyperpigemented lesions that may vary in colour from light brown to dark brown. This is reflected by the name of the condition, which means "coffee with milk." The borders may be smooth or irregular. The size and number of CAL skin lesions widely vary and they are usually the earliest manifestations of neurofibromatosis. The macules may be observed in infancy, although typically they are very light in infants and can be difficult to appreciate. The skin lesions develop in early infancy and they may enlarge in size becomimg obvious after two-years-of-age.

CAL spots are observed in 95% of patients with neurofibromatosis Type 1 (NF1), which is the most frequently occurring neurocutaneous syndrome. These spots may also be observed in patients without NF1. Other conditions in which they may be observed include McCune-Albright syndrome, tuberous sclerosis and fanconi anemia.

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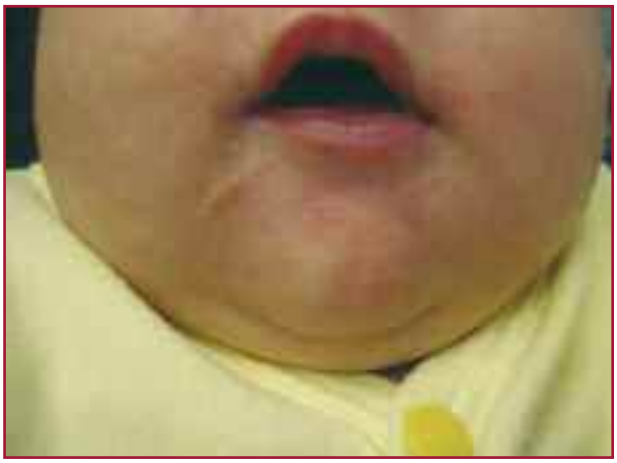
Case 5

Bump on the Chin

This one-week-old infant girl presented with a hairless orange plaque on the right side of the chin. When you rub the lesion nothing happens.



What is your diagnosis?

a. Mastocytoma
b. Juvenile xanthogranuloma
c. Pilomatricoma
d. Neonatal acne
e. Nevus sebaceous

Answer

Nevus sebaceous **(answer e)** common congenital lesion that occurs mainly on the face and scalp. It commonly presents at birth, is hairless and is yellow to tan in colour. It generally grows in proportion with the patient, but during puberty, it may become thicker, more verrucous and more greasy in appearance. Surgical excision is the treatment of choice and is recommended prior to puberty.

A mastocytoma may also present as a yellow-orange plaque. However, it usually urticates on rubbing (Darier's sign). A juvenile xanthogranuloma is a collection of non-Langerhans cell histiocytes which usually presents as a firm, round papule or nodule. A pilomatricoma is much harder and well defined and is caused by calcification at the base of the hair follicles. Neonatal acne presents early in life. However, it is composed of multiple facial papules and pustules.

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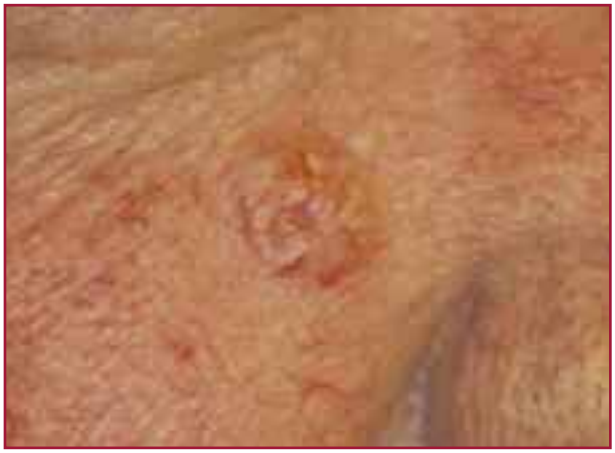
Case 6

A Skin-Coloured Nodule

A 63-year-old male presents with a small raised skin-coloured nodule on his right cheek. The patient has a history of excessive sun exposure and had four similar lesions removed from his shoulder, back and leg.



What is your diagnosis?

a. Melanoma
b. Basal cell carcinoma (BCC)
c. Squamous cell carcinoma (SCC)
d. Nevus

Answer

This patient has a nodular BCC **(answer b)**. BCC is an epithelial tumour of the skin that arises from the basal cells of the epidermis and its appendages. Non melanoma skin cancer (NMSC) refers to both BCC and SCC. The Canadian Cancer Society estimates that 73,000 individuals will develop NMSC in 2008. Of these newly diagnosed cases, it is estimated that 80% will be BCC and 20% will be SCC. Patients with a history of BCC have an increased risk of developing melanoma and have a 45% chance of developing one or more additional BCC over five years. BCC may invade surrounding tissue (muscle, bone subcutaneous) and cause significant morbidity—particularly if the invasion occurs around the eye, nose or skull, however, it rarely metastasizes.

There are four major subtypes of BCC:

- Nodular (nodular-ulcerative) BCC is the most common type, usually occurring on the head and neck, often having a transluscent, skin-coloured, waxy appearance with telengiectasias on the surface
- Pigmented type is similar to the nodular type except it is black brown or blue in colour and therefore can resemble melanoma
- Morphea-form or sclerosing type presents as a flat or slightly depressed, white sclerotic plaque, with a smooth shiny surface and ill defined border
- Superficial BCCs are unique to the other three types of BCC as they tend to occur on the trunk rather than the head and neck. This type of BCC can mimic psoriasis eczema or tinea corporis because it presents as erythematous, scaling patches with pearly borders

The most common treatment of BCC is surgical excision.

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Case 7

Uncomfortable Rash

This 50-year-old male noted a discomfort in the left buttock area one day before this eruption. There is no prior history of a similar event.

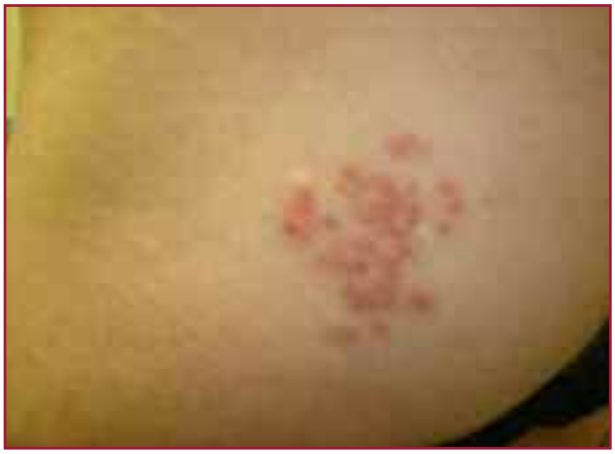
What is your diagnosis?

a. Herpes zoster
b. Bullous pemphigoid
c. Impetigo
d. Tinea corporis
e. Herpes progenitalis

Answer

Herpes progenitalis **(answer e)** also called genital herpes is caused by herpes simplex virus 2 (HSV-2) in 85% of initial episodes and 95% of recurrent ones. Herpes simplex virus 1 (HSV-1) which usually occurs above the waist may be the cause in the remainder. Antibodies to HSV-2 are rarely found prior to adolescence.

Primary episodes will typically occur three to seven days after exposure. There is usually a prodrome of localized pain or tenderness followed by the onset of the eruption. Primary occurrences may also be accompanied by various degrees of lymphadenopathy, malaise and fever. The eruption itself is often dramatic with blistering, pain and slow healing. Typically the lesions are clustered, clear or clouded blisters on an inflamed red base lasting 10 to 14 days in primary lesions.



Recurrent genital herpes can be subclinical or much more limited in severity with quicker resolution, usually in less than a week. Surprisingly, 50% of HSV-2 patients have recurrent attacks without a prior history of primary genital herpes as is the case in this gentleman. In individuals who have frequent recurrent genital herpes asymptomatic viral shedding occurs between outbreaks.

If the prodrome of tingling can be recognized prior to the onset of the lesions, oral antivirals can be effectively used to reduce or totally prevent the attack.

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

Case 8

Red Eyelids

A 78-year-old male visited the clinic with a long history of burning, watering, redness and foreign body sensation of both eyes.

What is your diagnosis?

a. Bacterial conjuctivitis
b. Viral conjuctivitis
c. Bilateral pterigium
d. Blepharitis

Answer

Blepharitis **(answer d)** refers to inflammation particularly at the lid margins. It is a common chronic inflammation of the lid margins and may occur in two forms. In squamous blepharitis, small white scales accumulate among the lashes, which fall out but are replaced without distortion. This condition is often associated with seborrhoeic dermatitis of the scalp. Ulcerative blepharitis is an infective condition and in this chronic form, may lead to conjuctivitis and permanent loss of lashes.

Most complaints are eye irritation, burning, tearing, foreign body sensation crusty debris (in the lashes, in the corner of the eyes or on the lids), dryness and red eyelid margins. Unfortunately, blepharitis is usually a chronic condition for which there is no known cure. However, early diagnosis and proper treatment is key to controlling the symptoms and to prevent worsening of the condition.

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