This month – 8 cases:

Case 1

Nodule on the Abdomen

This 68-year-old male presents with a 1 cm raised, pigmented nodule on his abdomen. He has a history of non-melanoma skin cancer. The lesion is itchy and has been present for six months.

What is your diagnosis?

a. Squamous cell carcinoma
b. Seborrheic keratosis
c. Basal cell carcinoma
d. Nevi
e. Melanoma

Answer

Seborrheic keratosis (SK) **(answer b)** is a benign epithelial tumour, which can occur on any part of the body except the mucous membranes. SKs may initially present as flat brown macules which eventually develop a rough and verrucous surface. Their colour varies from pale tan to dark brown or black with multiple follicular plugs and a "stuck-on" appearance.

SKs can resemble melanoma as they may have variegated colour with black pigmentation, irregular borders and when irritated they can develop erythema and crusting. SKs with an atypical clinical appearance should be submitted for pathological examination. The lesions can be removed via cryotherapy, laser or surgical excision.

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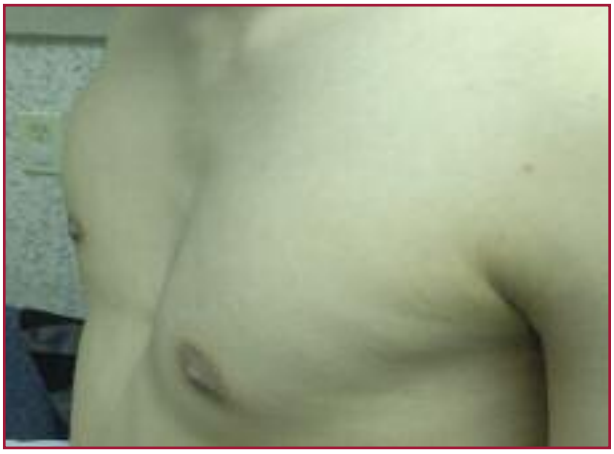
Case 2

Sunken Chest

This 19-year-old gentleman was noticed to have chest deformity in his yearly physical. The chest deformity is not causing him any problems and has been there for as long as he can remember. His examination was completely normal apart from this deformity. He had a normal double rhythm with no added sounds and had a good bilateral air entry.



What is your diagnosis?

a. Pectus carinatum
b. Kyphoscoliosis
c. Pectus excavatum
d. Rickets

Answer:

Pectus excavatum **(answer c)**, a Latin term meaning hollowed chest, is the most common congenital deformity of the anterior wall of the chest in which several ribs and the sternum grow abnormally. This produces a caved-in or sunken appearance of the chest. It is usually present at birth and progresses during the time of rapid bone growth in the early teenage years but in rare cases does not appear until the onset of puberty.

Pectus excavatum is sometimes considered to be cosmetic, however it can impair cardiac and respiratory function and cause pain in the chest and back. People with the abnormality may experience negative psychosocial effects and avoid activities that expose the chest. Pectus excavatum is sometimes referred to as cobbler's chest, sunken chest, funnel chest or simply a dent in the chest. The heart is displaced (and rotated), base lung capacity is decreased and mitral valve prolapse may also be present.

Pectus excavatum is initially suspected from visual examination of the anterior chest. Auscultation of the chest can reveal displaced heart beat and valve prolapse. There can be a heart murmur occurring during systole caused by proximity between the sternum and the artery. Lung sounds are usually clear yet diminished due to decreased base lung capacity. Chest x-rays are useful for diagnosis and in pectus excavatum they can show an opacity in the right lung area that can be mistaken for an infiltrate (such as that seen with pneumonia). Pectus excavatum is differentiated from other disorders by a series of elimination of signs and symptoms. Pectus carinatum is excluded by the simple observation of a collapsing of the sternum rather than a protrusion. Kyphoscoliosis is excluded by diagnostic imaging of the spine, where in pectus excavatum the spine usually appears normal in structure.

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 3

Spotting on the Foot

This 30-year-old woman first noticed spots on the inner aspect of both feet at age seven. The spots have progressed in intensity and number into her teens when a similar eruption occurred in the pubic area.

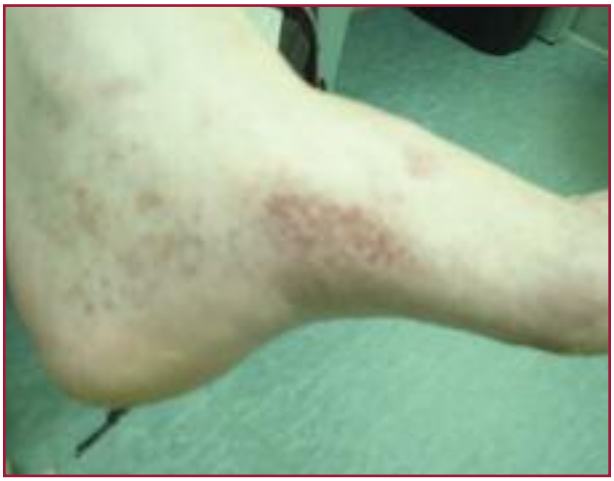
What is your diagnosis?

a. Hemangioma
b. Mastocytosis
c. Kaposi's sarcoma
d. Angioma serpiginosum
e. Mycoses fungoides

Answer

Angioma serpiginosum **(answer d)** is a rare vascular change beginning in the first two decades of life with slow progression. It is most commonly seen in girls, usually first noted on the extremities.

The colour is due to dilated capillaries which do not disappear but may darken with time due to hemosiderin deposition, as is seen in benign pigmentary purpura.



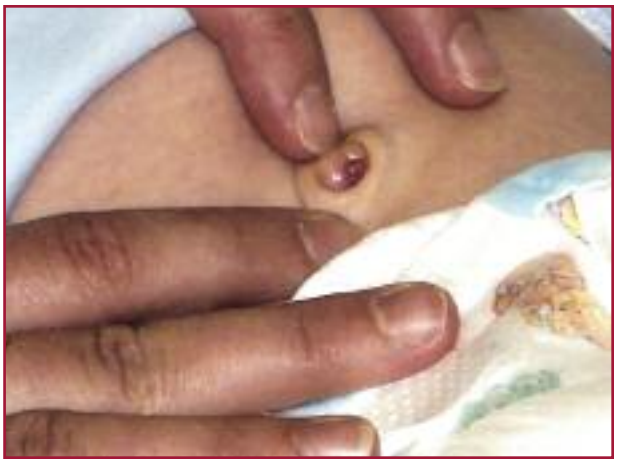
The irregular pattern is serpiginous. The colour is due to dilated capillaries which do not disappear but may darken with time due to hemosiderin deposition, as is seen in benign pigmentary purpura. There is no treatment for this condition.

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

Case 4

Umbilical Lesion

A three-week-old infant is noticed to have a reddish lesion in the umbilical area.



What is your diagnosis?

a. Umbilical granuloma
b. Patent omphalomesenteric duct
c. Umbilical hernia
d. Umbilicus cutis

Answer

Umbilical granuloma **(answer a)** results from mild infection or incomplete epithelialization of the umbilical stump following separation of the umbilical cord. The granulation tissue is soft, friable, wet, mushroom-like and cherry red. The lesion is usually 3 mm to 10 mm in diameter and may have a seropurulent secretion. The usual treatment is cauterization with 75% silver nitrate stick, repeated at intervals of several days until the lesion is healed.

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A patent omphalomesenteric duct typically presents with an umbilical discharge which is often feculent. An umbilical hernia presents as a soft, skin-covered swelling that protrudes through the fibrous ring at the umbilicus.

The umbilical bulge becomes more apparent during episodes of crying or straining and is easily reducible. Umbilicus cutis results when skin extends up the sides of the umbilical cord, forming an outpouching after the cord falls off.

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Case 5

White Patched Eyelid

A four-year-old girl presents with a single white coloured patch on her right upper eyelid. There is no scale and no other cutaneous lesions. She has no loss of sensation or preceding erythema and has otherwise been well.

What is your diagnosis?

a. Pityriasis alba
b. Post-inflammatory hypopigmentation
c. Pityriasis versicolor (tinea versicolor)
d. Waardenburg syndrome
e. Vitiligo

Answer

Vitiligo **(answer e)** is a skin condition caused by an immune-mediated destruction of melanocytes affecting 1% of the general population. It has characteristic depigmented macules and papules with well-defined, often hyperpigmented, linear or oval borders. The localized type of this disease is more common in children than adults. Three-quarters of primary lesions appear in exposed areas. Koebner phenomenon is the appearance of a lesion in response to trauma, which occurs in 15% of cases.

Complete repigmentation is unusual, but transient, partial repigmentation occurs especially for new lesions and during the summer months. Depigmentation, however, often recurs in the winter season. Repigmentation commonly starts in the perifollicular area, reflecting the reservoir of melanocytes in the hair follicle. As such, surfaces with more hair have a higher likelihood of repigmentation. Therapeutic options include potent topical steroids, topical calcineurin inhibitors and UV light. These can facilitate repigmentation, particularly on the head and neck. Camouflaging the lesions using cosmetic makeup is an option.

Pityriasis alba is distributed on the face, arms, neck and shoulders and occasionally has a fine scale. The presence of depigmented lesions, rather than hypopigmented lesions distinguishes this case from post-inflammatory hypopigmentation. Pityriasis versicolor is a result of cutaneous yeast overgrowth, leading to small, round hypopigmented macules on the trunk and upper arms, more so than the face and can lead to post-inflammatory hyperpigmentation. The lack of a white forelock, iris heterochromia and sensorineural deafness differentiates this condition from Waardenburg syndrome.

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Melissa Paquette is a Final Year Medical Student at the University of Calgary, Calgary, Alberta.

Case 6

Red, Scaly, Pruritic Shin

A 66-year-old female presents with a slowly enlarging scaly, red plaque on her shin which is mildly pruritic. She has tried moisturizers and hydrocortisone which has shown some improvement in symptoms. She has a history of diabetes and is on metformin.

What is your diagnosis?

a. Dermatitis
b. Tinea corporis
c. Psoriasis
d. Large actinic keratosis
e. Tinea versicolor

Answer

Tinea corporis **(answer b)** is a common, superficial dermatophyte infection of the nonliving cornified layers of skin. Dermatophyte infections are typically causes by either *Trichophyton* species, *Epidermophyton* species or *Microsporum* species. Dermatophytes can reside on humans, animals, or soil and can affect the skin, hair or nails. Tinea corporis spreads out in a centrifugal pattern with an "active border" of scale. Lesions are often asymptomatic, although there can be mild pruritus or burning.

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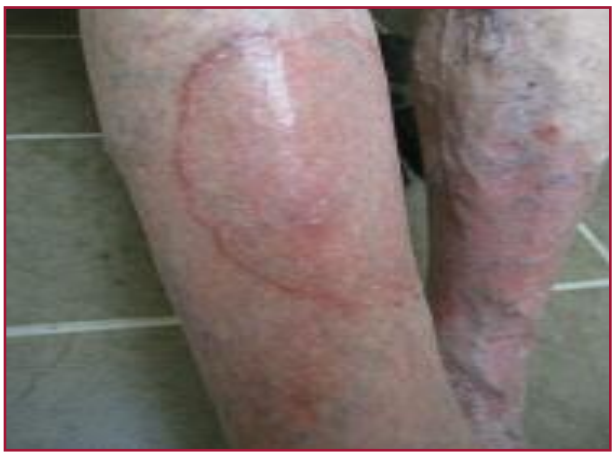


If treated with topical steroids, the symptoms improve, but the rash persists in an altered form "tinea incognito." Topical antifungals such as azoles, allylamines, or ciclopirox olamine should be applied once daily or twice a day for two to three weeks, making sure to spread the treatment 1 cm to 2 cm beyond the edge of the rash.

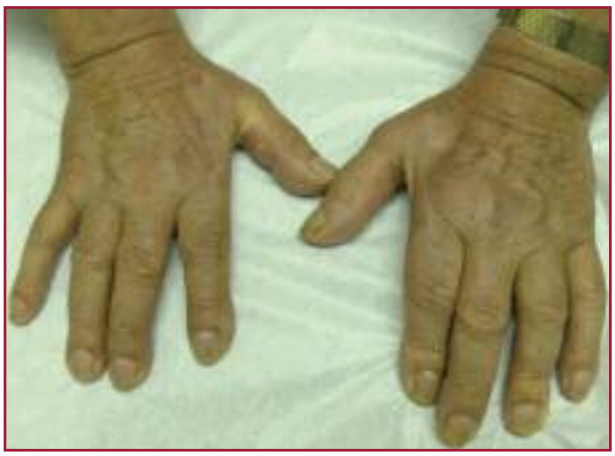
Occasionally a mild topical steroid can be used concomitantly for a few days to manage any pruritus or burning. In widespread cases or those resistant to topical therapy, or in the presence of comorbidites such as onychomycosis, oral antifungal therapy (typically itraconazole 100 mg b.i.d. for one to two weeks) can be initiated.

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

Case 7

Hand Weakness

This 80-year-old gentleman started to have left-sided hand weakness around three years ago and has started to proximally spread to the left arm followed by weakness of the right hand. He had an inferior MI 16 years ago and has been on baby ASA, ramipril and metoprolol since then. His examination revealed a very well oriented man who conducts himself very well. He was noticed to have pronounced fasciculation in both upper arms, excessive saliva drooling and atrophy of both first dorsal interosseous muscles mainly on the left side.



What is your diagnosis?

a. Myasthenia gravis
b. Guillain-Barré syndrome
c. Amyotrophic lateral sclerosis
d. Rheumatoid arthritis

Answer

Amyotrophic lateral sclerosis (ALS) **(answer c)** is a progressive, fatal, neurodegenerative disease. In the US, this condition is often referred to as Lou Gehrig's disease, after the New York Yankees baseball star who was diagnosed with the disease in 1939 and died from it two years later; today, renowned physicist Stephen Hawking is likely the best-known ALS patient.

The disorder causes muscle weakness and atrophy throughout the body as both the upper and lower motor neurons degenerate, ceasing to send messages to muscles. Unable to function, the muscles gradually weaken, develop fasciculation because of denervation and eventually atrophy because of that denervation. The patient may ultimately lose the ability to initiate and control all voluntary movement, bladder and bowel sphincters and the muscles responsible for eye movement are usually (but not always) spared.

Cognitive function is generally spared except in certain situations such as when ALS is associated with frontotemporal dementia. However, there are reports of more subtle cognitive changes of the frontotemporal type in many patients when detailed neuropsychological testing is employed. Sensory nerves and the autonomic nervous system, which controls functions like sweating, generally remain functional.

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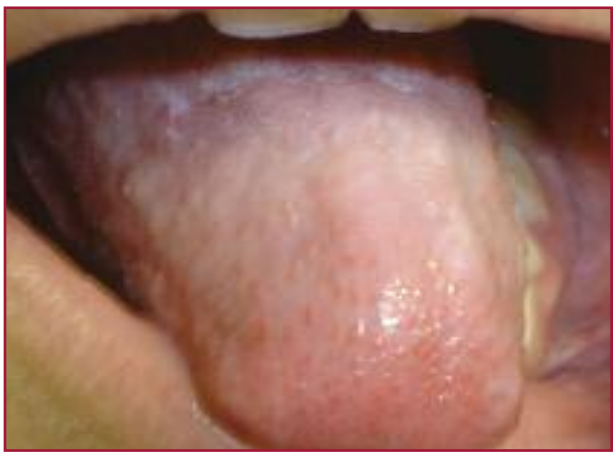
Case 8

Sore Tongue

This 20-year-old woman over the past three months has had a sore tongue.



What is your diagnosis?

a. Lichen planus (elsewhere)
b. Iron deficiency
c. B12 deficiency
d. Oral medications she may be taking
e. Candidiasis

Answer

Oral lichen planus (OLP) **(answer a)** can occur in several forms in the mouth. Most commonly it forms a white lace-like pattern on the tongue, buccal mucosa or even the gingiva. It is usually bilateral and asymptomatic but at times may present with some burning. The atrophic and bullous forms are more likely to cause mild to severe pain. Plaque types are more often seen in smokers and the frequency overall is higher in smokers.

Malignant transformation has been reported in longstanding chronic forms. Both erosive and reticular forms have been associated with Hepatitis C.

The atrophic and bullous forms are more likely to cause mild to severe pain.

A biopsy of asymptomatic violaceous papules of the lumbar area in this patient was characteristic of lichen planus.

Investigation of a sore tongue requires testing for a low B6, B12, folates and ferritin as well as swabs for candidiasis. Drugs that can also cause a sore tongue range from antimetabolites to antidepressants and antibiotics.

The most common treatment for OLP are topical steroids and topical calcineurin inhibitors.

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