This month – 7 cases:

Case 1

Firm, White Plaque on Axilla

A 40-year-old female presents with a firm, white plaque on the left axilla.

What is your diagnosis?

a. Keloid
b. Morphea
c. Vitiligo
d. Nevus

Answer

Morphea **(answer b)** is a condition characterized by localized sclerosing or hardening of the skin due to collagen deposition. Morphea is more common in women over 30-years-of-age, and appears as one or several thickened, firm, ivory-coloured round to oval plaques with a waxy, elevated surface. Inflamed plaques may have a violaceous border. Mature plaques may be hyperpigmented or exhibit signs of atrophy.

Plaques may resolve spontaneously, although topical steroids provide some improvement.

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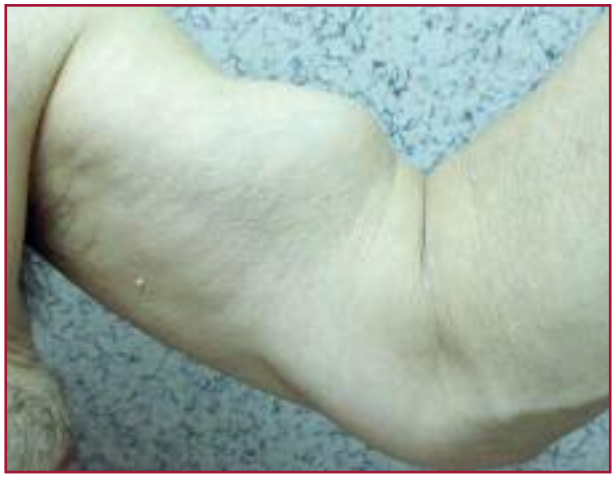
Case 2

Painless, Unproblematic Lump

This gentleman enquired during his yearly physical examination about this lump. He has had it for a few years. It is painless and unproblematic.



What is your diagnosis?

a. Lipoma
b. Liposarcoma
c. Sebaceous cyst
d. Repture of long head of triceps
e. Repture of long head of biceos

Answer

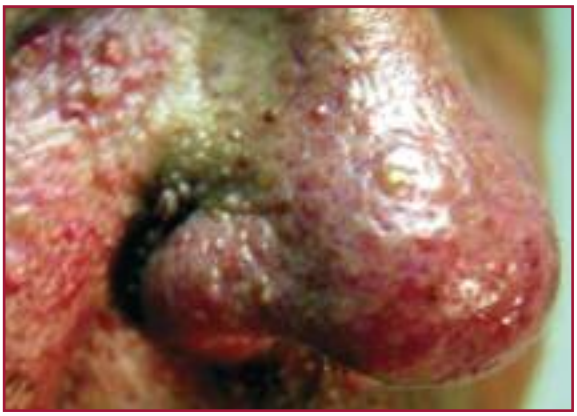
Repture of long head of biceos **(answer e)** occurs after lifting or pulling an item resulting in what patients have been known to refer to as: "something has gone" in the bicep area. What follows is a ball-like muscle being formed on the elbow flexion. Treatment is not generally indicated, since functionality remains.

Hayder Kubba, MBChB, LMCC, CCFP, FRCS(UK), DFFP, DPD, 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

Ugly Growths

This 55-year-old male visited a clinic with multiple growths involving his toes. He had used salicylic acid and clipped the lesions, which frequently regrow. He also has angiofibromas involving the paranasal and central face areas.



What is your diagnosis?

a. Adenoma sebaceum
b Neurofibromatosis
c. Tuberous sclerosis
d. Common warts

Answer

Tuberous sclerosis **(answer c)** is an uncommon autosomal-dominant condition of variable expression. About 50% of patients experience new mutations. Hamartomas occur in several organs. The abnormal genes have been mapped to chromosomes 9 and 11. This disease is characterized by the presence of red and white, firm and discrete macules of angiofibromas sometimes mistakenly called adenoma sebaceum. These are pathognomonic of this condition, but appear late in infancy. The lesions are reddish, telangiectatic papules with a yellowish tint, varying from 1 mm to 3 mm in diameter, and occurring mostly in nasolabial folds and cheeks. Development and dysplastic lesions are found in other organs including the brain and kidney. The principal early manifestations are the triad of seizures, mental retardation and facial angiofibromata. The disease usually manifests in childhood, but mild forms may present in adult life. The presence of periungal fibromas aid the diagnosis. An affected individual should have a full clinical examination, often with radiographs and a CT scan of the head. Genetic counselling is given once the diagnosis is made.

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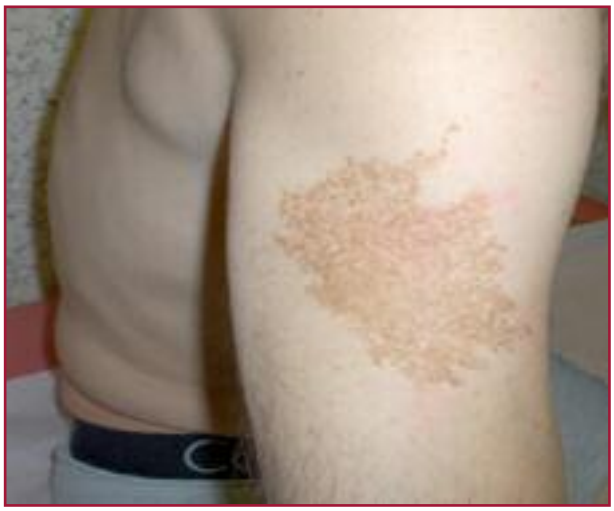
Case 4

Pigmented Lesion on Upper Arm

This gentleman has had this lesion since birth. It has increased in size as he has gotten older. He is not bothered by it at all.



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What is your diagnosis?

a. Congenital nevomelanocytic nevus
b. Pigmented epidermal nevus
c. Dysplastic Melanocytic nevus
d. Café-au-lait macule

Answer

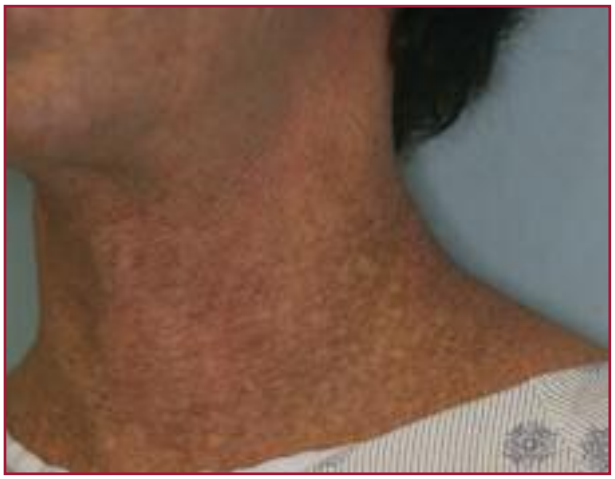
Congenital nevomelanocytic nevus (CNN) **(answer c)** is a pigmented lesion of the skin, usually present at birth. Rare varieties of CNN can develop and become clinically apparent during infancy. CNN may be of any size, from very small to very large. CNN are benign neoplasms composed of cells called nevomelanocytes, which are derived from melanoblasts. All CNN, regardless of size, may be precursors of malignant melanoma.

The prevalence of CNN is equal in both males and females, and it is present in 1% of aucasian new-borns, the majority are less than 3 cm in diameter.

Case 5

A Reticular, Scaling Rash

A 17-year-old male presented with poorly defined erythematous patches of scaling, pruritic skin on the side of his neck



What is your diagnosis?

a. Atopic dermatitis
b. Irritant contact dermatitis
c. Early stages of mycosis fungoides
d. Psoriasis

Answer

This patient has atopic dermatitis **(answer a)**. Atopic dermatitis is an acute subacute, or chronic relapsing skin condition with an affinity for flexures, the front and sides of the neck, eyelids, face, wrists and dorsa of the feet and hands. A patient with acute atopic dermatitis can present with poorly defined, widespread, erythematous patches, papules and plaques which may or may not scale and/or erode. In chronic cases lichenification of the skin, alopecia and periorbital pigmentation may result from repeated scratching. Atopic dermatitis commonly first presents in infancy through childhood and is characterized by dry skin and pruritis with onset occurring before the first year of life in 60% of patients, and only 10% develop atopic dermatitis between 6 and 20 years of age.

Diagnosis is based on clinical findings, although the serum IgE level is usually elevated. Atopic dermatitis is a complex interaction of the skin barrier, genetic, environmental, pharmacologic and immunological factors. Atopic dermatitis is also associated with a personal or family history of atopic dermatitis, allergic rhinitis and asthma. Exacerbation of atopic dermatitis may occur from exposure to potent allergens (*i.e.* cat, dog, cigarette).

Treatment of atopic dermatitis consists of education of the patient on the importance of avoiding rubbing and scratching, as well as topical anti inflammatories and emollients (topical steroids, calcineurin inhibitors). An allergic work-up is rarely helpful in identifying the allergen.

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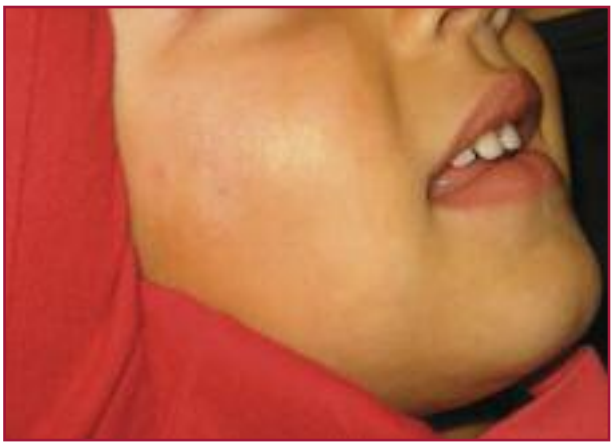
Case 6

White Patches on Cheeks

A 3-year-old girl presents with a one-year-history of multiple hypopigmented patches localized to the cheeks that have become more pronounced over the summer. Her skin is slightly dry, but she is otherwise asymptomatic.



What is your diagnosis?

a. Pityriasis alba
b. Leprosy
c. Tinea versicolor
d. Vitiligo
e. Nevus depigmentosus

Answer

Pityriasis alba **(answer a)** consists of hypopigmented patches that may have an associated fine scale and commonly occur on the face, neck, upper trunk and proximal extremities. It is an extremely common lesion, particularly in those with darker skin pigmentation, and is thought to result from post-inflammatory pigmentary changes associated with a nonspecific dermatitis. With sun exposure, lesions become more pronounced as they do not hyperpigment in response to UV exposure. Repigmentation can be encouraged with moisturizers or a short course (around two weeks) of mild topical corticosteroids or calcineurin inhibitors. The use of sunscreen can limit the visible contrast between lesions and surrounding skin.

Leprosy, a relatively rare disorder in North America, results from chronic infection with the acid-fast bacillus *Mycobacterium leprae*. Sensory involvement is common, with numbness often preceding the onset of cutaneous lesions. Skin lesions often demonstrate associated hypoesthesia and hair loss. Peripheral nerves are also commonly affected and may be thickened on physical examination. Diagnosis can be confirmed with the presence of acid-fast bacilli on skin smears or biopsy.

Tinea versicolor is an extremely common skin infection caused by the yeast forms of the fungus *Malassezia furfur*. Cutaneous findings include multiple scaling macules, patches and plaques that may be hypo- or hyper-pigmented. Similar to pityriasis alba, pigmentary changes are more pronounced in the summer after increased UV light exposure. However, tinea versicolor occurs more frequently in adolescents, with distribution most commonly observed over the trunk and arms, and with lesions occurring less often on the face and neck. Lesions are also much more extensive. Diagnosis is usually made clinically, and can be confirmed by the presence of hyphae and spores demonstrating the characteristic "spaghetti and meatballs" appearance on KOH wet-mount.

Vitiligo results from localized destruction of melanocytes, likely of autoimmune etiology. It can easily be distinguished from pityriasis alba by the presence of depigmentation of skin lesions, versus the hypopigmentation found in pityriasis alba. Examination under Wood's light can help confirm the diagnosis.

Nevus depigmentosus, also known as nevus achromicus, consists of a round or oval, well-demarcated, hypopigmented patch. Lesions are usually present at birth or appear during infancy. While multiple nevi have been described, there is usually a solitary lesion. Unlike pityriasis alba, there is no associated scale or evidence of dermatitis, and lesions remain unchanged over time.

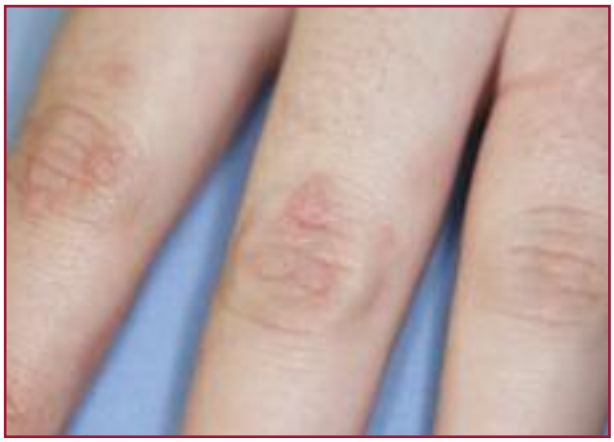
Joseph M. Lam is a Clinical Assistant Professor of Pediatrics and an Associate Member of Dermatology. He practices in Vancouver, British Columbia.

Rebecca Levy is a pediatric resident at the Hospital for Sick Children.

Case 7

Monomorphic Papules on Fingers

This 16-year-old girl presents with multiple flat, minute, monomorphic papules occurring on the right second, third and fourth fingers.



What is your diagnosis?

a. Seborrheic keratosis
b. Basal cell carcinoma
c. Nevi
d. Plane warts

Answer

The correct diagnosis is flat or "plane" warts (**answer d**). Verruca or warts are caused by the human papilloma virus, which can present with varied morphology on the skin and mucous membranes. Plane warts are a clinical variant that present as flat, well defined papules that are skin coloured or light-brown. These typically occur on the face or the dorsum of the hands.

Plane warts can be treated using topical keratolytics, salicylic acid, cryotherapy or conservative follow-up. Retinoids and imiquimod are other possible options, with benefit demonstrated in anecdotal case reports.

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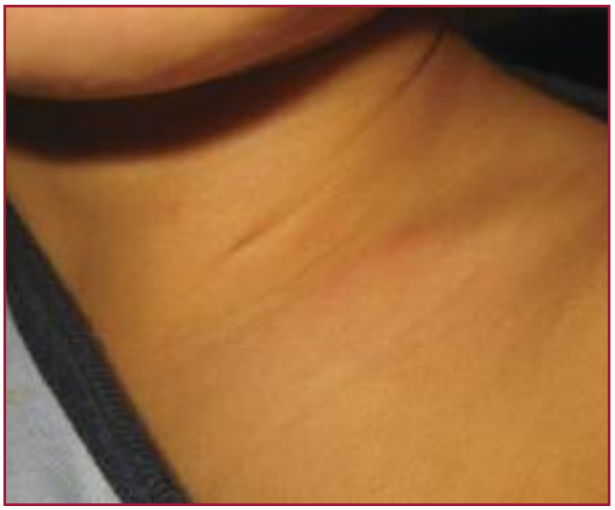
Case 8

Dimple on the Neck

A 21-month-old boy presents with a deep dimple on the left lower neck, which has been present since birth. The dimple is located in the anterior region of the sternocleidomastoid muscle. There is no local discharge or swelling. The lesion is asymptomatic. On physical examination, a firm, mobile cyst can be palpated under the dimple. He is otherwise healthy with normal development and no abnormal facies.



What is your diagnosis?

a. Cystic hygroma
b. Dermoid cyst
c. Plunging ranula
d. Branchial cleft sinus and cyst
e. Thyroglossal duct cyst

Answer

Branchial cleft sinus and cyst **(answer d)** is a benign, lateral neck lesion resulting from improper closure of the first and second branchial clefts during embryonic development. It is the most common of all branchial apparatus abnormalities. Lesions may be unilateral or bilateral. Complications may include infection, following enlargement and mass effect, which compromise respiration. Treatment includes complete surgical removal, with good prognosis.

Cystic hygromas are most commonly found on the head, neck, axilla and chest. They are associated with malformation syndromes, including Down syndrome, trisomy 18 and Noonan syndrome. Dermoid cysts are usually congenital, thin-walled lesions containing fatty masses, which can be accurately differentiated using magnetic resonance imaging (MRI). A plunging ranula is a midline neck mass that forms secondarily to a salivary duct obstruction, with a female predilection. Patients often present first with oral swelling. Thyroglossal duct cysts are midline lesions that are remnants from an incomplete thyroid descent. These cysts can be seen to move upward with protrusion of the tongue.

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