



This month – 16 cases:

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Case 1

Ulcerated Lesion on the Lip

A 44-year-old, nonsmoking, female patient with a habit of biting her lip presents with this painless, ulcerated lesion, which has grown over the past month.



What is your diagnosis?

- Kaposi's sarcoma
- Basal cell carcinoma
- Pyogenic granuloma
- Squamous cell carcinoma

Answer

Pyogenic granuloma (**answer c**) is a benign, vascular tumour that grows rapidly over weeks to months. It is often a solitary lesion that arises on the skin or mucosal surfaces, with trauma being a potential trigger. Pyogenic granuloma may occur in any age group, with peak incidence in the second and third decades of life. It occurs most frequently on the skin. Children commonly present with head and neck lesions and adults with truncal lesions. Mucosal pyogenic granuloma is most likely to occur in adult women.

The exact pathogenesis of pyogenic granuloma is unclear. Pyogenic granuloma is a misnomer, as this

type of tumour is not necessarily pus-producing, nor is it granulomatous. It may become ulcerated and/or infected, as it is characterized by a friable surface. Microscopically, it consists of a lobular arrangement of overgrown capillaries.

Excisional biopsy is recommended over nonsurgical treatment for concerning lesions, as it is both diagnostic and curative, with a low potential rate of recurrence. Tissue should be sent to pathology to rule out malignant lesions with a similar presentation.

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**Case 2**

Difficult to Diagnose Skin Lesions

This 61-year-old Canadian of Asian origin requested treatment for her skin lesions, which she has had for the last eight years. Her condition was treated as a case of eczema with prolonged courses of oral steroids. The clinical summary from her attending physician in China indicated that she had dyshidrotic dermatitis with prominent hand and foot involvement; these lesions initially began as a blistering disorder and only responded to increased doses of oral prednisone. The lesions would flare up as soon as she stopped taking prednisone; hence, she was kept on a prolonged course of oral steroids.

Her recent dual-energy X-ray absorptiometry scan revealed advanced osteoporosis with a high ten-year fracture risk. She suffers from hypertension, but her blood pressure is very well controlled on 150 mg a day of irbesartan. She is not aware of any allergies and has never been previously admitted to the hospital. She denies any family history of osteoporosis or skin disease.

Diagnosis was only reached with biopsy.

What is your diagnosis?

- Epidermolysis bullosa acquisita
- Bullous systemic lupus erythematosus
- Erythema multiforme
- Bullous pemphigoid

Answer

Bullous pemphigoid (BP) (**answer d**) is a subepidermal blistering disease caused by autoantibodies to components of the hemidesmosomes in the basement membrane zone. BP is the most common autoimmune bullous disease; incidence is around 1 per 100,000 a year, and it favours elderly people.

Men are more frequently affected, with a male to female ratio of 2:1.

The blisters are usually preceded by pruritus, dermatitis, and urticarial lesions.



Always consider BP when confronted with an elderly patient with persistent urticaria.

Diagnostic testing should include:

- Blood tests to detect elevated erythrocytic sedimentation rate. Eosinophilia with increased IgE is present in 60% of cases
- Direct and indirect immunofluorescence
- Biopsy
- Enzyme-linked immunosorbent assay identifies antibodies and correlates best with disease progress

Systemic steroids are the mainstay of treatment. Prednisone is started in a dose of 1 mg/kg body weight, and the dose is decreased to a maintenance dose of 8 to 10 mg a day as soon as the disease is controlled.

Steroid sparing agents, such as mycophenolate mofetil and azathioprine can be tried with promising results.

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

Dark Line on Fingernail

A 30-year-old African American female presents with a dark line on her fingernail, which has been present for a few years. She reports that her father has similar dark lines on a few of his nails.

What is your diagnosis?

- Subungual nevus
- Onychomycosis
- Longitudinal melanonychia
- Subungual melanoma

Answer

Longitudinal melanonychia (LM) (**answer c**) presents as a hyperpigmented vertical line on the nail plate. Normally, melanocytes in the adult nail matrix remain dormant. In LM, these cells become activated, resulting in an increased production of melanin, which then appears as a visible band of pigmentation in the nail plate.

Causes of LM include physiologic causes (more common in darker skinned individuals), systemic diseases (including lupus, psoriasis, and Cushing's syndrome), trauma, fungal infections, and drugs (including ketoconazole, antimalarials, and chemotherapeutics). Treatment options depend on the underlying etiology, and once serious causes are ruled out, reassurance is adequate.



Subungual melanoma is a cancerous lesion and is more common in individuals between 50- and 70-years-of-age and in those who have a family history of dysplastic nevus or melanoma. The thumb, big toe, and index finger may be affected, and the pigment may extend into adjacent cuticles and nail folds. A subungual melanoma can be differentiated from a subungual nevus based on clinical features; the former has irregular parallel lines and a band width of more than 3 mm. Onychomycosis is a fungal infection in which the nail appears thickened, discoloured, and brittle.

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**Case 4**

Short Fourth Metacarpals

A 27-year-old female presents with short fourth metacarpals bilaterally, which she has had since childhood. She has a moon face and suboptimal IQ. Her serum calcium and parathyroid hormone concentrations are normal.

What is your diagnosis?

- a. Pseudohypoparathyroidism
- b. Pseudopseudohypoparathyroidism
- c. Hypoparathyroidism
- d. Rickets

Answer

Pseudopseudohypoparathyroidism (pseudoPHP) (**answer b**) is an autosomal dominant disorder, characterized by a constellation of symptoms, including short stature, round face, brachydactyly, ectopic calcification or ossification, and mild intellectual disability. The most commonly shortened metacarpal is the fourth metacarpal (“missing knuckle” sign). Metastatic calcification commonly affects the subcutaneous tissue and basal ganglia. **The disorder arises from the disruption of genomic imprinting of the *GNAS* gene that encodes the α -chain of Gs protein that activates adenylyl cyclase. Patients with pseudoPHP have normal serum calcium, phosphate, and parathyroid hormone (PTH) levels.**

Pseudohypoparathyroidism is a heterogenous disorder characterized by end-organ resistance to PTH, and it is classified as types Ia, Ib, Ic, and II according to phenotype, underlying pathogenesis, and biochemical abnormalities. Affected patients have decreased serum calcium, increased serum



phosphate, and increased PTH. Patients with pseudoPHP and pseudohypoparathyroidism type Ia and type Ic share the same phenotype.

Hypoparathyroidism is caused by a deficiency of parathyroid hormone, which results in hypocalcemia and hyperphosphatemia. Affected patients may have delayed teeth eruption, positive Chvostek's or Trousseau's sign, muscular pain, laryngeal or carpopedal spasms, and seizures.

Rickets signifies a failure of mineralization of growing bone or osteoid tissue, leading to skeletal deformity. The disorder often results from vitamin D deficiency.

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Case 5

Erythematous Arm Rash

A 13-year-old boy presents with an erythematous, nonitchy rash on his right arm.

What is your diagnosis?

- a. Lichen planus
- b. Linear psoriasis
- c. Linear epidermal nevus
- d. Lichen striatus

Answer

Lichen striatus (**answer d**) is a benign, self-limited, T-cell-mediated dermatosis characterized by a linear, inflammatory, papular eruption, and it is seen primarily in children between the ages of 5 and 15. The female-to-male ratio is approximately 2:1. Approximately 85% of patients with lichen striatus have a personal or family history of atopy.

The onset is usually abrupt. The eruption consists initially of discrete, flesh-coloured or erythematous, flat-topped papules that are 1 to 3 mm in diameter. Papules often coalesce to form a hyperpigmented, continuous or interrupted linear band. Although lichen striatus may involve any part of the body, the arms and legs are most commonly affected. Typically, the lesion is solitary, unilateral, and follows Blaschko's lines. The lesion is usually asymptomatic and nonpruritic. Rarely, onychodystrophy may occur, especially when the eruption involves the posterior nail fold and matrix.



Lichen striatus is a self-limited condition that often resolves within one year. When associated with onychodystrophy, the lesion tends to persist longer. For those patients who want therapy for cosmetic reasons, a topical corticosteroid or a topical immunomodulator (tacrolimus or pimecrolimus) is the treatment of choice, because either medication may hasten resolution of the lesion.

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**Case 6**

Yellow-orange Skin

A 17-month-old boy presents with a yellow-orange discolouration of the skin. He has no sclera icterus. On history, his favourite foods are sweet potatoes, pumpkin, and winter squash.

What is your diagnosis?

- a. Carotenemia
- b. Liver dysfunction
- c. Child abuse
- d. Uremia

Answer

Carotenemia (**answer a**) is a benign disorder primarily seen in infants and children that results from the ingestion of carotene-rich foods, such as carrots, squash, pumpkin, sweet potatoes, peaches, apricots, and mangoes. Carotene normally adds a yellow hue to the skin. Excess blood levels of carotene lead to increased skin yellowing, particularly in the palms and soles, nasolabial grooves, forehead, chin, upper eyelids, anterior axillary folds, elbows, knees, knuckles, and ankles. The mucus membranes and sclera are spared. There is no associated pruritus or discolouration of the urine or stool. Treatment is not required. However, reducing carotene-containing foods in a patient's diet will reduce the amount of yellow discolouration within four to six weeks. Rarely, carotenemia is associated with underlying diseases, such as hypothyroidism, diabetes mellitus, anorexia nervosa, and renal diseases.

Liver dysfunction is unlikely in this case due to the lack of scleral icterus and mucus membrane involvement. The absence of pruritus, pale stool, dark urine, ascites, encephalopathy, hepatosplenomegaly, and unexplained bleeding and bruising would also make this diagnosis improbable.

Child abuse is nonaccidental trauma inflicted upon a child. In this situation, the history is the key component of the diagnosis. The mechanism of injury, past injuries, past medical history (especially bleeding disorders), social history, family history, and developmental history are all vital. On physical exam, an injury that



is inconsistent with the mechanism, ecchymoses on padded areas (buttock, face, genital area) or uncommonly injured areas (lower back, inner thighs, earlobe, lips), and adult human bites are particularly concerning. Careful attention to a pattern of injury may reveal linear or curvilinear loops induced by lashing of a rope or belt; grab or slap marks; adjacent small ecchymotic macules representing pinch marks; or deep, round ulcerated lesions consistent with cigarette burns. Ecchymoses in various stages of healing may be yellow, blue, red, or black in colour and are also a sign of abuse. The most common lesion in child abuse is ecchymoses; however, abrasions, lacerations, or hyperpigmentation may also occur.

Uremia is a term used to describe abnormally high levels of urea in the blood due to renal failure and decreased clearance of urea by the kidney. Cutaneous manifestations include dry, pruritic, and scaly skin, which is hyperpigmented and dull with yellow undertones. The sallow appearance is partially due to urochrome (the pigment that gives urine its colour), and the hyperpigmentation is thought to be due to decreased renal clearance of melanocyte-stimulating hormone. The skin may have a velvety look and feel. Uremic patients may also have a fine residue on their skin termed uremic frost.

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Case 7

Deep Ulceration on the Nose

An 88-year-old female developed a deep ulceration over her nose. She has been diagnosed with Alzheimer's disease and congestive heart problem. Upon further questioning, the family stated that her problem started approximately one year ago. At first, a small, white asymptomatic papule occurred. The small nodular lesion extended peripherally in an irregular pattern, and, then a few months later, the centre of the lesion ulcerated and crusted but did not bleed. Because of her medical condition, her family decided not to start with any investigations and therapy.

What is your diagnosis?

- a. Basal cell carcinoma
- b. Basal cell carcinoma (BCC) and squamous cell carcinoma (SCC)
- c. Squamous cell carcinoma
- d. Keratoacanthoma

Answer

The answer is basal and squamous cell carcinoma (answer b). Basal cell carcinoma (rodent ulcers) is the most common form of skin cancer and is seen typically on the face in elderly or middle-aged subjects. It arises from the basal keratinocytes of the epidermis and is locally invasive but very rarely metastasize. A lesion is often present for two or more years before the patient seeks advice. Squamous cell carcinoma (SCC) is a malignant tumour derived from keratinocytes that usually arises in an area of damaged skin. It mainly occurs in people over 55-years-of-age, is more common in males than females, and may metastasize.



It is essential that all tumours are biopsied for diagnosis and treatment. BCC and SCC usually develop in sun exposed sites, such as the face, neck, forearms or hands.

The most appropriate treatment for BCC depends on its size, site, and type and the age of the patient. If possible, complete excision is the best form of treatment. If excision is difficult or not possible, incisional biopsy and radiotherapy are suitable for those aged 60 and over. Large tumours around the eye and the nasolabial fold require Mohs microsurgery. For squamous cell carcinoma, the choice of therapy should be made by a dermatologist in collaboration with a radiation therapist and a surgeon.

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Case 8

A Red, Painful Leg

This 65-year-old, diabetic gentleman presents for a follow-up appointment after being discharged from the hospital. He was admitted via our office with a red, painful leg associated with a high temperature of 40°C, tachycardia of 120 beats per minute, and blood pressure of 120/70. He was treated with intravenous cloxacillin; following treatment, his condition seemed to improve.

He is on metformin 1,000 mg b.i.d., which he admits to not taking regularly.

What is your diagnosis?

- Cellulitis
- Erysipelas
- Erythrasma
- Thrombophlebitis

Answer

Cellulitis (**answer a**) is an infection of the subcutaneous tissues. The common causative organisms are *Staphylococcus*; group A β -hemolytic streptococci, *Haemophilus influenzae*, *Vibrio vulnificus*, Fungi (*Cryptococcus neoformans*) and Gram-negative rods (*Serratia*, *Enterobacter*, *Proteus*, and *Pseudomonas* genera).

Differential diagnosis includes:

- Erysipelas is characterized by indurated, well demarcated, elevated margins. Lymphatic involvement and vesicle formation are common
- Staphylococcal cellulitis-involved areas are erythematous, hot, and swollen; they can be differentiated from erysipelas by nonelevated, poorly demarcated margins. Local tenderness and regional lymphadenopathy are common. Up to 85% of cases occur on the legs and feet
- Haemophilus influenzae* cellulitis-involved areas appear blue-red/purple-red. It occurs mainly in children and generally involves the face in children and the neck or upper chest in adults



- Vibrio vulnificus* is characterized by larger hemorrhagic bullae, cellulitis, lymphadenitis, and myositis. It is often found in chronically ill patients in septic shock

Diagnosis usually follows history and a classical clinical picture.

- Gram stain and culture can be taken (aerobic and anaerobic)
- Skin scrapings for mycology should be done to identify a causative organism
- Blood cultures should be done for hospitalized patients (as the patient in the above photograph), patients who have cellulites superimposed on lymphedema, and patients suspected of having a salt water or freshwater source of infection, such as *Vibrio vulnificus*
- MRI should be done in cases of suspected necrotizing fasciitis for which we should have a high index of suspicion

Treatment for cellulitis should include immobilization, elevation of the involved limb, and antibiotics.

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Case 9

Rash on the Buttock

This 45-year-old male believes that his rash developed following an extended driving trip in a new car with leather seats. He has a long history of tinea versicolor.

What is your diagnosis?

- a. Tinea versicolor
- b. Candidiasis
- c. Tinea corporis
- d. Contact dermatitis
- e. Psoriasis

Answer

Tinea corporis (**answer c**) is a dermatophyte infection that can affect any part of the body. It is most commonly caused by *Trichophyton rubrum*. It is often confused with the other conditions listed above. There may be coexisting tinea pedis, and, as a result, the patient's feet should also be checked.

Typically, tinea corporis begins as small areas of scaling that extend outwards with more inflamed outer edges and less scaling centrally. Symptoms can be negligible, itchy, or burning in character.



Topical antifungal agents are usually very effective. Care should be taken in cases such as this to apply treatment creams to the buttock, perineal and inguinal folds. If there is unrecognized involvement in these areas that are not treated, recurrences are more likely. For this reason, a two-week course of oral antifungals would be worthwhile if recurrences do occur.

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Case 10

Erythematous Blanching Rash

A 10-year-old girl presents to the clinic with an erythematous blanching rash on her abdomen, which is mildly itchy. Her mother reports that the child has had a slight fever since the day before and has also been coughing. The rash presents on the trunk, neck, and back. There is no involvement of the hands, face, or mucosal membranes. She is up to date with all childhood immunizations.

What is your diagnosis?

- a. Seborrheic dermatitis
- b. Viral exanthem
- c. Psoriasis
- d. Contact dermatitis

Answer

Viral exanthem (**answer b**) is an eruptive rash that is accompanied with systemic symptoms. It is typically caused by an infection, most often viral. A viral exanthem is quite common in children, especially those who have not yet been vaccinated against measles, mumps, or chicken pox. It can also be associated with other diseases, such as fifth disease, mononucleosis, and the adenovirus.

Patients may complain of symptoms, such as body aches, fatigue, headaches, runny nose, and cough. The rash consists of erythematous papules and macules that are usually found on the limbs and trunk.

This is usually self-limited and resolves within 10 days. Patients are advised to rest and drink liquids. Diphenhydramine is an over-the-counter antihistamine that can alleviate pruritus, while acetaminophen or ibuprofen can help to reduce fever and pain.



Seborrheic dermatitis is very common in adults. It presents as red coloured plaques with a greasy, overlying scale. It occurs predominantly in areas with a high number of sebaceous glands, such as the face, scalp, and creases and folds of the body.

Psoriasis is a proliferative rash that appears red in colour, has well demarcated borders, and is made up of plaques covered with silver scales. It commonly appears on the scalp, trunk, and extensor surfaces of the limbs.

Contact dermatitis occurs following contact with an external chemical or substance that irritates the skin. Patients may complain of dry, itchy, and irritated skin, which may blister. In cases with chronic exposure, the rash may appear thickened and lichenified.

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**Case 11**

Darkening of the Skin Axillae

A 39-year-old, overweight male presents with bilateral darkening and thickening of the axillae skin and numerous skin tags on the neck and groin. He has a family history of hypertension and diabetes, but he does not like to visit doctors, so his health status is unclear.

What is your diagnosis?

- a. Acanthosis nigricans
- b. Irritant contact dermatitis
- c. Postinflammatory hyperpigmentation
- d. Allergic contact dermatitis
- e. Elephantiasis

Answer

Acanthosis nigricans (AN) (**answer a**) is a relatively common asymptomatic skin finding characterized by velvety, light to dark brown hyperpigmentation affecting the neck, axillae, and groin; other areas are less commonly affected. Skin tags are a common co-occurrence. [Approximately 5 to 7% of children have this finding, and many obese adults have this condition. It is often associated with being overweight and having insulin resistance. AN is more common in darker skin types, occurs at any age, and both genders are similarly affected. It can also be a familial trait, associated with diabetes or other endocrine disorders, or associated with the use of medications, such as estrogen and systemic steroids.](#)

Rarely, AN is associated with an underlying tumour. In these cases, AN occurs rapidly and presents in irregular places, such as the lips, oral mucosa, hands (“tripe palms”) and genitalia. Gastric



adenocarcinoma is the most common underlying malignancy, and the prognosis is poor in these patients.

Histopathology is seldom necessary. For patients with adult onset of AN, the physician should perform a basic work-up for underlying malignancy. Patients should also be screened for diabetes with a glycosylated hemoglobin level or an oral glucose tolerance test and for insulin resistance with a plasma insulin level (high in those with insulin resistance).

Counselling patients regarding weight reduction can improve the condition, although other therapies can be tried with modest success to reduce irritation or improve cosmesis: topical tretinoin, 20% urea, alpha hydroxyacids (e.g., glycolic or lactic acid), salicylic acid, and mild topical steroid prescriptions.

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



Case 12

Multiple, Brownish Cheek Lesions

A 33-year-old Caucasian female presents with multiple brownish lesions on her cheeks. She has a history of acne.

What is your diagnosis?

- a. Flat warts
- b. Dermatitis papulosa nigra
- c. Seborrheic keratoses
- d. Melasma

Answer

Flat warts (**answer a**) can appear as flesh-coloured to light brown papules that multiply and spread out. The face is a common location. Flat warts are due to the human papillomavirus (HPV), of which there are more than 100 strains. Warts are particularly common in childhood, but they can show up at any age and in any location. While many warts have a verrucous or warty



appearance, with tiny black dots (thrombosed vessels), flat warts do not have these features and can go undiagnosed for some time.

Treatment options include topical imiquimod or 5-fluorouracil, topical vitamin A acid or tretinoin, and salicylic acid. Gentle liquid nitrogen or electrosurgery are other options. Oral zinc therapy can provide some benefit as well. Less commonly, oral isotretinoin, intraleisional Candida, and bleomycin are used.

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



Case 13

Possible Overexposure to Sunlight

This 72-year-old gentleman spent most of his life in Australia and was overexposed to sun.

What is your diagnosis?

- a. Elastosis
- b. Solar pseudo scars
- c. Solar (actinic) keratosis
- d. Seborrheic keratosis
- e. All of the above

Answer

This patient has elastosis, solar pseudo scars, solar (actinic) keratosis, and seborrheic keratosis; hence, the correct answer is all of the above (**answer e**).

1. Elastosis is a form of skin aging, and is clinically apparent as semiconfluent, yellowish-coloured papules, which are usually most prominent on the lateral aspect of the forehead, cheeks, nape of the neck, and the back, if exposed to sun.
2. Solar pseudo scars commonly occur on the arms, due to chronic photo aging, and typically have a satellite shape.
3. Solar (actinic) keratoses are rough, scaly papules on chronically sun-exposed skin. Generally, they



are more easily felt than seen due to the rough texture of the abnormal keratin.

4. Seborrheic keratoses are very common lesions that have a flat, but warty, surface and typically look like they are “stuck” on the skin.

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 14

Ulceration on the Buttock

A 92-year-old female developed a superficial ulceration over her right buttock. She has a history of atrial fibrillation and chronic back pain. She is otherwise asymptomatic.

What is your diagnosis?

- Second degree burn after applying a hot compress
- Mechanical skin abrasion
- Intertrigo or Intertriginous dermatitis
- Decubitus

Answer

Intertrigo or Intertriginous dermatitis (**answer c**) is an inflammatory condition of skin folds that is induced or aggravated by heat, moisture, maceration, friction, and lack of air circulation. Intertrigo is frequently worsened or colonized by infection, which most commonly is candidal but may also be bacterial, fungal, or viral. Intertrigo commonly affects the axillae, perineum, inframammary creases, and abdominal folds. Intertrigo occurs more often among overweight individuals, those with diabetes, those restricted to bed rest, and those who use medical devices, like artificial limbs, that trap moisture against the skin. Sweat, feces, urine, and vaginal discharge may aggravate intertrigo in both adults and infants.



Figure 1. Before Treatment



Figure 2. After Treatment

Keeping the area of the intertrigo dry and exposed to the air can help prevent recurrences. If the individual is overweight, losing weight can help. Using antibacterial soap, surrounding the skin with absorbent cotton or a band of cotton fabric, and treating the skin with absorbent body powders and even antiperspirants will all help prevent future occurrences. In some cases, local antibacterial or antifungal ointments are necessary. If the involved area is itchy, mild topical corticosteroids (*e.g.*, hydrocortisone) should be considered.

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Case 15

An Elevated Arm Lesion

A 36-year-old male complains of a long-standing lesion on the right arm of 10-years duration. There is no history of change, but he finds the lesion to be a nuisance.

What is your diagnosis?

- a. Basal cell carcinoma
- b. Keratoacanthoma
- c. Seborrheic keratosis
- d. Fibroepithelial polyp (acrochordon)
- e. Halo nevus

Answer

Fibroepithelial polyp (acrochordon) (**answer d**) is a common, benign, flesh coloured neoplasm, commonly found on the intertriginous areas of the body, such as the neck, axillae, and groin. It occurs in up to 50% of the population and is also known as a skin tag. Predisposing factors include obesity, diabetes, and familial tendency. Typically, an acrochordon is smaller than 5 mm in size, although it may become larger than 1 cm. Often, it has a peduncle (stalk). In contradistinction to malignant neoplasms, acrochordon displays with a smooth surface and an overall symmetrical appearance.

Patients may request removal of lesions for cosmetic reasons. Occasionally, acrochorda may become



inflamed due to incidental trauma from jewellery or clothing. Small acrochorda may be removed with cryotherapy or electrocautery; however, larger lesions may require surgical excision. Pathology reveals a fibrovascular core of connective tissue with an unremarkable epidermis. The vast majority of patients are healthy, but a rare association has been reported in various conditions including Birt-Hogg-Dubé syndrome, acromegaly, and polycystic ovary syndrome.

Simon Lee, MD, FRCPC, is a Dermatologist who practices in Richmond Hill, Ontario.



Case 16

A Mass on the Wrist

A 12-year-old girl presents with a mass on the ventral aspect of the left wrist. The lesion is asymptomatic. There is no history of trauma to the affected area, decreased mobility of the right wrist, or weakness of the right hand.

What is your diagnosis?

- a. Sebaceous cyst
- b. Dermoid cyst
- c. Lipoma
- d. Ganglion

Answer

A ganglion (**answer d**) is a cystic swelling that typically arises from the synovium of either a joint capsule or tendon sheath. The cyst contains either a clear, gelatinous, colloid material or a thick mucinous fluid. The latter contains hyaluronic acid and other mucopolysaccharides. The fluid is surrounded by a dense network of collagen fibres and fibrocytes. The most common sites include the dorsum of the wrist and the dorsum of the foot, although ganglion cysts may occur throughout the body. Ganglion cysts seldom emanate from within the joint itself; the incidence of intra-articular lesions has been reported to be 0.2 to 1.6% on magnetic resonance imaging.

Ganglia are often asymptomatic. Occasionally, there might be localized pain, paresthesia, limitation of



motion, or weakness of the involved area. The condition can be complicated by carpal tunnel syndrome.

No treatment is necessary, since most cases resolve spontaneously. Treatment is indicated if the ganglion is large, causes pain, or interferes with normal tendon function. Treatment options include needle aspiration or surgical excision.

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