Week 3 - NR 511. Week 3 Davis Edge- Skin and Eye problems

Differential Diagnosis & Primary Care Practicum (Chamberlain University)

NR 511 Davis Edge Skin Review Questions Week 3

A 22-year-old African American female presents to your family practice office complaining of progressive skin discoloration. She is adopted and has no known family history of skin problems. The patient notes nonpalpable patches of skin loss and blanching of her forehead and both hands and feet. It has developed over a period of 6 months and appears to have stopped. It is not pruritic, and there is no erythema or sign of infectious etiology. What is the most likely diagnosis?

- **Vitiligo**- This is the physical description of vitiligo.
- **Alopecia** Alopecia involves hair loss, not skin discoloration.
- **Addison Disease** This condition involves hyperpigmentation of the skin, not hypopigmentation of the skin.
- **Tinea Versicolor** This refers to hypopigmentation of the skin due to a fungal infection and is noticed mostly after sun exposure.

Which presentation is most concerning for skin cancer?

- **Dark pigmentation of 1 solitary nail that has developed quickly and without trauma.** This is concerning for acral melanoma
- **A 1-mm blue, round, nonpalpable discoloration of the skin that has been present since birth without change.** This describes a benign blue nevus, common in patients of Asian descent.
- **A 5-mm black mole with round, regular boarders.** This mole is round, regular, less than 6 mm, and without change; it is likely benign.
- **A 2-mm brown mole that is raised 1 mm but round and regular.** This mole is small, regular, minimally raised, and only 1 color; it is likely benign.

A 4-year-old male presents to your pediatric clinic with his mother complaining of an itchy rash, mostly between his fingers. This has been going on for multiple days and has been getting worse. The patient recently started at a new day care. On physical exam, the patient is afebrile and has multiple small (1-2 mm) red papules in sets of 3 located in the web spaces between his fingers. He also has signs of excoriation. What is the treatment for this problem?

- **Permethrin lotion for the patient and also his family members. –** This is the treatment for scabies
- **Cold compresses and hydrocortisone cream 1% twice a day. -** This would decrease inflammation but would not cure the scabies.
- **Over-the-counter Benadryl cream.** This would provide itching relief but would not cure the scabies.
- **Ketoconazole cream.** This would treat a fungal infection, not scabies.

Which of the following patients would not be at risk of *Candida* infection?

- **A patient with a history of coronary artery disease.** Coronary artery disease doesn't increase the risk of *Candida* infection.
- **A diabetic patient.** Diabetes increases the risk of *Candida* infection.
- **A patient requiring home antibiotics while recovering from an operation for an infected hernia.** Use of long-term antibiotics increases the risk of *Candida* infection.
- **A patient using a steroid regimen for asthma control** Use of long-term steroids increases the risk of *Candida* infection.

A 3-year-old patient presents to your pediatric office with her mother. She has recently been started in day care. Her mother noted slight perioral erythema on the right side of the patient's mouth prior to bed last night. The patient awoke today with 3 small, superficial, honey-colored vesicles where the erythema was last night. The patient has no surrounding erythema. She had no difficulty eating this morning and is active and energetic and doesn't appear lethargic or fatigued. She is also afebrile. How would you treat this child?

- **Local debridement and mupirocin for 5 days**. This is the treatment of choice for impetigo.
- **Oral Keflex for 7 days.** This is for more severe cases in which the patient is febrile.
- **Topical compress with Burow solution and follow-up in 2 to 3 days.** This compress would help but would not prevent bacterial spread.
- **Local debridement and topical compress with Burow solution and close follow-up.** This would help as well but wouldn't prevent bacterial spread.

A 22-year-old college student presents to your urgent care clinic complaining of a rash. She was recently on spring break and spent every night in the hot tub at her hotel. On physical exam, she has multiple small areas of 1- to 2-mm erythematous pustules that are present mostly where her bathing suit covered her buttocks. What is the most likely pathogen causing these lesions?

- ***Pseudomonas aeruginosa*.** This is a common cause of hot tub folliculitis.
- ***Klebsiella*.** This could be a cause of folliculitis in an immunocompromised patient.
- ***Staphylococcus aureus*.** Gram-positive bacteria can cause folliculitis, but this is not the most common pathogen found in a hot tub.
- ***Streptococcus*.** Gram-positive bacteria can cause folliculitis, but this is not the most common pathogen found in a hot tub.

Which human papillomavirus serotypes most commonly cause cancer?

- **Serotypes 16 and 18**. – Cause Cancer
- **Serotypes 6 and 11**. Cause genital warts
- **Serotypes 3 and 10.** Cause flat warts
- **Serotypes 27 and 29.** Cause plantar warts

A 27-year-old female comes in to your primary care office complaining of a perioral rash. The patient noticed burning around her lips a couple days ago that quickly went away. She awoke from sleep yesterday and noticed a group of vesicles with erythematous bases where the burning had been before. There is no burning today. She is afebrile and has no difficulty eating or swallowing. What test would confirm her diagnosis?

- **Tzanck smear.** This would show giant cells consistent with herpes simplex virus.
- **Potassium hydroxide (KOH) prep.** This is used to diagnose fungal infections.
- **Exam under a Wood lamp.** This is used to diagnose fungal infections.
- **Sterile culture sent for aerobic and anaerobic bacteria.** This would help with bacterial causes of these lesions; a polymerase chain reaction (PCR) would have to be sent to diagnose herpes simplex.

Which condition is not included in the atopic triad?

- **Aspirin sensitivity** This is included in the ASA, or Samter, triad, which also includes nasal polyps and asthma.
- **Asthma** This is included in the atopic triad.
- **Allergic Rhinitis** This is included in the atopic triad.
- **Eczema** This is included in the atopic triad.

A 16-year-old male presents to your office. He was sent by an orthopedist. He has recently had surgical fixation of a humerus fracture. The patient has been going to physical therapy and has been developing a rash on his arm after therapy that disappears shortly after returning home. He does not have the rash prior to therapy. The patient denies fevers and chills, and his incision is well healed, with no signs of infection. Of note, the patient has been experiencing more hand edema than the average patient and has had edema wraps used at the end of therapy to help with his swelling. The wraps are made of a synthetic plastic material. The rash the patient gets is erythematous and blotchy, not raised; it is on the operative upper extremity. What is the most likely diagnosis?

- **Contact dermatitis** The patient's history and rash are consistent with a latex or plastic sensitivity due to the edema wraps used in therapy.
- **Atopic dermatitis** The patient's rash is not consistent with eczema, which is dry and erythematous and usually found in the skin folds and around the eyes.
- **Seborrheic dermatitis** The patient's rash is not consistent with seborrheic dermatitis, as no greasy yellow scales are present.
- **Psoriasis** Psoriasis is typically described as silvery scales on top of an erythematous, raised base.

Which of the following statements about psoriasis is not true?

- **Psoriatic lesions are often silvery scales that form over erythematous plaques.** This is a general description of psoriasis.
- **Psoriatic lesions often occur in the folds of the elbows and behind the knees.** This is untrue; lesions usually occur on the fronts of the knees, the posterior aspects of the elbows, and the scalp.
- **People with psoriasis have a greater risk of depression than the average population.** This is true; there is a correlation between psoriasis and an increased risk of developing depression.
- **Psoriasis has a genetic component.** This is true; psoriasis has a genetic component and is associated with genetic findings on chromosomes 4, 6, 8, 16, and 17.

Which of the following has/have not been linked to the use of isotretinoin?

- **Elevated liver transaminases.** This is listed as a possible adverse reaction to isotretinoin.
- **Depression, psychosis, and suicidality.** This is listed as a possible adverse reaction to isotretinoin.
- **Benign intracranial hypertension.** This is listed as a possible adverse reaction to isotretinoin.
- **Pancreatitis.** This is not an adverse effect of isotretinoin.

A 55-year-old landscaper presents to your primary care office complaining of a small skin lesion on his face. The patient states the lesion causes no pain or other symptoms. On physical exam, you notice a small (3 mm) papule that is flesh-colored and irregular. To palpation, the lesion feels hard and like sandpaper. What type of malignancy is this patient at risk for given the appearance of this lesion?

- **Squamous Cell Carcinoma.** The lesion described is an actinic keratosis, which is a premalignant lesion that can progress to squamous cell carcinoma.
- **Melanoma** Melanoma is a type of cancer that arises in melanin-forming cells; the lesion described here is not melanoma.
- **Basal Cell Carcinoma** Basal cell carcinoma typically presents as a papular lesion with telangiectasia.
- **Rosacea** Rosacea is not associated with cancer.

An eczematous skin reaction may result from:

- **Penicillin** Penicillin, neomycin, phenothiazines, and local anesthetics may cause an eczematous type of skin reaction.
- **Allopurinol (Zyloprim)** Allopurinol (Zyloprim) and sulfonamides may cause exfoliative dermatitis.
- **Oral contraceptives.**
  Oral contraceptives may cause erythema nodosum.
- **Phenytoin (Dilantin)** Phenytoin (Dilantin) and procainamide (Pronestyl) may cause drug-related systemic lupus erythematosus.

Sophie brings in her husband, Nathan, age 72, who is in a wheelchair. On his sacral area, he has a deep crater with full-thickness skin loss. Subcutaneous tissue is visible but muscle and bone are not. Which pressure ulcer stage is this?

- **Stage I** Stage I is nonblanchable erythema of intact skin.
- **Stage II** Stage II is partial-thickness skin loss involving the epidermis and/or dermis. It may appear as an abrasion, blister, or shallow ulcer.
- **Stage III** A stage III pressure ulcer is one that has a deep crater with full-thickness skin loss. Subcutaneous tissue may be visible; however, underlying structures, such as tendon, muscle, and bone, are not visible. There may be undermining or tunneling. Keep in mind that in areas with little or no subcutaneous tissue, such as the heel or bridge of the nose, stage III ulcers may be shallow.
- **Stage IV** Stage IV involves full-thickness skin loss with extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structures. In a stage IV pressure ulcer, underlying structures are visible or directly palpable.

A Gram stain of a lesion reveals large, square-ended, gram-positive rods that grow easily on blood agar. Which diagnosis does this finding confirm?

- **Dermatophyte Infection** A dermatophyte infection is diagnosed with a potassium hydroxide preparation revealing hyphae and spores. In addition, fungal cultures demonstrate different fungi.
- **Tuberculosis (scrofuloderma)** Tuberculosis (scrofuloderma) is diagnosed with a histologic examination revealing caseous necrosis and acid-fast bacilli.
- **Sarcoidosis** Sarcoidosis is diagnosed with a biopsy revealing noncaseating granulomas.
- **Anthrax** Anthrax is diagnosed with a Gram stain revealing large, square-ended, gram-positive rods that grow easily on blood agar.

The ABCDEs of melanoma identification include which of the following?

- **Asymmetry: one half does not match the other half.** A is for asymmetry: one half does not match the other half. One of the warning signs of cancer is a lesion that does not heal or an area that changes in appearance. The ABCDEs of melanoma identification should be taught to all clients.
- **Border: the borders are regular; they are not ragged, notched, or blurred.**
  B is for border irregularity: the edges of a melanoma are ragged, notched, or blurred.
- **Color: pigmentation is uniform.** C is for color: pigmentation is not uniform; there may be shades of tan, brown, and black as well as red, white, and blue.
- **Diameter: the diameter is 5 mm.** D is for diameter greater than 6 mm. (E is for an evolving lesion, ie, changing in any way.)

Sandra, age 32, comes in to the clinic. She has painful joints and a distinctive rash in a butterfly distribution on her face. The rash has red papules and plaques with a fine scale. What do you suspect?

- **Lymphocytoma cutis** Lymphocytoma cutis is also most common on the face and neck. It occurs in both sexes and has smooth, red to yellow-brown papules up to 5 cm in diameter.
- **Relapsing polychondritis** Relapsing polychondritis occurs in adults with a history of arthritis. It appears as macular erythema, tenderness, and swelling over the cartilaginous portions of the ears.
- **Systemic lupus erythematosus** If a client comes in to the clinic complaining of painful joints and has a distinctive rash on the face that consists of red papules and plaques with a fine scale in a butterfly distribution, suspect systemic lupus erythematosus. Acute lupus erythematosus occurs most often in young adult women. In the acute phase, the client is febrile and ill. The presence of these skin lesions in a client with neurological disease, arthritis, renal disease, or neuropsychiatric disturbances also supports the diagnosis.
- **An allergic reaction** Sandra's joint pain and the bilateral distribution of her rash are not suggestive of an allergic reaction.

Your 24-year-old client whose varicella rash just erupted yesterday asks you when she can go back to work. What do you tell her?

- **"Once all the vesicles are crusted over."** A client who has a varicella rash can return to work once all the vesicles are crusted over. Varicella is contagious 48 hours before the onset of the vesicular rash, during the rash formation (usually 4-5 days), and during the several days it takes the vesicles to dry up. The characteristic rash appears 2 to 3 weeks after exposure.
- **"When the rash is entirely gone."** A client who has a varicella rash can return to work once all the vesicles are crusted over.
- **"Once you have been on medication for at least forty-eight hours."** Treatment is effective only if started within the first few days and then only to shorten the course of the disease.
- **"Now, as long as you stay away from children and pregnant women."** Clients should avoid contact with pregnant women and children who have not been exposed to varicella.

Client teaching is an integral part of successfully treating pediculosis. Which of the following statements would you incorporate into your teaching plan?

- **"It's okay to resume sharing combs, headsets, and so on after being lice-free for one month."** Clients and parents should be instructed not to share hats, combs, scarves, headsets, towels, and bedding.
- **"Soak your combs and brushes in rubbing alcohol for eight hours."** Combs and brushes should be soaked in rubbing alcohol for 1 hour.
- **"Itching may continue for up to a week after successful treatment."** Client education is essential when treating pediculosis. Clients should be informed that itching may continue for up to a week after successful treatment because of the slow resolution of the inflammatory reaction caused by the lice infestation.
- **"Spraying of pesticides in the immediate environment is essential to prevent recurrence."** Excessive decontamination of the environment is not necessary. Environmental spraying of

pesticides is not effective and, therefore, is not recommended. Bedclothes and clothing should be washed in hot, soapy water.

Tom, age 50, is complaining of an itchy rash that occurred about a half hour after putting on his leather jacket. He recalls having a slightly similar rash last year when he wore his jacket. The annular lesions are on his neck and both arms. They are erythematous, sharply circumscribed, and both flat and elevated. His voice seems a little raspy, although he states that his breathing is normal. What is your first action?

- **Order a short course of systemic corticosteroids.** All the actions are appropriate. However, it is most important to determine if respiratory distress is imminent; if it is, epinephrine must be administered.
- **Determine the need for 0.5 mL 1:1000 epinephrine subcutaneously.** Tom has hives. Although all the actions are appropriate, the first step is to determine the need for 0.5 mL 1:1000 epinephrine subcutaneously. With Tom's neck involvement, it is most important to determine if respiratory distress is imminent; if it is, epinephrine must be administered.
- **Start daily antihistamines.** All the actions are appropriate. However, it is most important to determine if respiratory distress is imminent; if it is, epinephrine must be administered.
- **Tell Tom to get rid of his leather jacket.** All the actions are appropriate. However, it is most important to determine if respiratory distress is imminent; if it is, epinephrine must be administered.

When palpating the skin over the clavicle of Norman, age 84, you notice tenting, which is:

- **Indicative of dehydration** Skin turgor is decreased with dehydration.
- **Common in thin older adults** Tenting—which occurs when pinched skin remains pinched for a few moments before resuming its normal position—over the clavicle is common in thin older adults. Skin turgor is decreased with dehydration and increased with edema and scleroderma.
- **A sign of edema** Skin turgor is increased with edema.
- **Indicative of scleroderma** Skin turgor is increased with scleroderma

The nurse practitioner (NP) tells Samantha, age 52, that she has an acrochordon on her neck. What is the NP referring to?

- **A nevus-** a nevus is a mole
- **A skin tag-** Skin tags (acrochordons) are benign overgrowths of skin commonly seen after middle age and usually found on the neck, axillae, groin, upper trunk, and eyelids.
- **A lipoma** A lipoma is a benign subcutaneous tumor that consists of adipose tissue.
- **A wart** A wart is a circumscribed elevation due to hypertrophy of the papillae and epidermis.

Maryann, age 28, presents to the clinic because of a rapid onset of patchy hair loss. The skin within these oval patches of hair loss is very smooth. Tapered hairs that resemble exclamation points are seen at the margin of a patch of hair loss. Based on these findings, you suspect Maryann has:

- **Alopecia areata** The findings are consistent with alopecia areata, ie, nonscarring hair loss of rapid onset, the pattern of which is most commonly sharply defined round or oval patches.
- **Trichotillomania** The cause of trichotillomania is mechanical, and the patch typically has an irregular, angulated border.
- **Tinea Capitis** Tinea capitis is caused by a fungal infection of the skin and hair shaft. Most commonly there is diffuse or patchy adherent scale on the scalp.
- **Androgenetic alopecia** Androgenetic alopecia is premature loss of hair in an androgen-sensitive area of the scalp; in men, it is commonly known as male-pattern baldness.

Roy, age 13, was recently diagnosed with epilepsy and prescribed carbamazepine for control of his seizures. He has developed erythematous papules, dusky appearing vesicles, purpura, and target lesions that have erupted rapidly and are more centrally distributed on the face. He has hemorrhagic crusts on his lips. He tells you his skin feels tender and burns. Additionally, he has developed exudative conjunctivitis. These findings are indicative of:

- **Urticaria** Exudative conjunctivitis is not a typical finding in urticaria.
- **Pemphigus vulgaris** Exudative conjunctivitis is not a typical finding in pemphigus vulgaris.
- **Herpetic gingivostomatitis** Exudative conjunctivitis is not a typical finding in herpetic gingivostomatitis.
- **Steven Johnson Syndrome** SJS is a severe blistering mucocutaneous syndrome that involves at least 2 mucous membranes. Drugs frequently implicated in the development of SJS are phenytoin, phenobarbital, carbamazepine, sulfonamides, and aminopenicillins.

Eric, age 52, has gout. What do you suggest?

- **Using salicylates for an acute attack.** Salicylates should be avoided because they block renal excretion of uric acid.
- **Limiting consumption of purine-rich foods.** For a client with gout, the consumption of purine-rich foods, such as organ meats, should be limited to prevent uric acid buildup.
- **Testing his uric acid level every 6 months.** Annual testing of the serum uric acid level is sufficient.
- **Decreasing fluid intake.** Fluids should be increased to 2 L per day and alcohol should be limited.

Marge, age 36, is planning to go skiing with her fiancé. He has warned her about frostbite, and she is wondering what to do if frostbite should occur. You know she's misunderstood the directions when she tells you which of the following?

- **"I should remove wet footwear if my feet are frostbitten."** Advise the client to remove wet footwear if the feet are frostbitten.
- **"I should rub the area with snow."** Rubbing or massaging the frostbitten area, especially with snow, may cause permanent tissue damage.
- **"I should apply firm pressure to the area with a warm hand."** Advise the client to apply firm pressure to the area with a warm hand.
- **"I should place my hands in my axillae if my hands are frostbitten."** Advise the client to place the hands in the axillae if the hands are frostbitten.

A 70-year-old client with herpes zoster has a vesicle on the tip of the nose. This may indicate:

- **Ophthalmic zoster** (herpes zoster ophthalmicus) involves the ciliary body and may appear clinically as vesicles on the tip of the nose. A client with a herpetic lesion on the nose needs to be referred to an ophthalmologist to preserve the eyesight.
- **Herpes simplex** primarily occurs on the perioral, labial, and genital areas of the body.
- **Kaposi sarcoma** in the older adult usually occurs in the lower extremities.
- **Orf and milker's nodules** almost always appear on the hands.

Which disease usually starts on the cheeks and spreads to the arms and trunk?

- **Erythema infectiosum (fifth disease)** usually starts on the cheeks and spreads to the arms and trunk.
- **Rocky Mountain spotted fever**, which is associated with a history of tick bites, starts as a maculopapular rash with erythematous borders, appearing first on the wrists, ankles, palms, soles, and forearms.
- **Rubeola (measles)** starts as a brownish-pink maculopapular rash around the ears, face, and neck, and then progresses over the trunk and limbs.
- **Rubella (German measles)** starts as a fine, pinkish, macular rash that becomes confluent and pinpoint after 24 hours.

Jennifer, age 32, is pregnant and has genital warts (condylomata) and would like to have them treated. What should you order?

- **Benzoyl peroxide** is used for acne.
- **Podophyllin (Podocon-25)** is contraindicated in pregnancy.
- **Trichloroacetic acid**- Genital warts (condylomata) may be treated using liquid nitrogen cryotherapy, trichloroacetic acid, or podophyllin (Podocon-25). However, podophyllin is contraindicated in pregnancy.
- **Corticosteroids** are not used to remove warts.