Week 6

Objective Questions

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1. Describe some common infections of the skin, give specifics in your response as to why you choose to mention them.

   Impetigo is a common skin infection in children caused by streptococcus or staphylococcus. Impetigo is a superficial, bacterial skin infection that most commonly develops around the mouth of a child and looks red and blister like. It is extremely itchy, contagious and is easily spread. This is typically cured with an antibiotic cream or ointment that is applied directly to the infected site. I chose to discuss this specific infection because a friend of mines child developed impetigo when he was a toddler.

   Cellulitis is an infection of the subcutaneous tissue in the skin and is caused by streptococci or staphylococci. Cellulitis is a serious bacterial infection of the skin and can develops through entering a cut or scratch on the skin. Cellulitis appears swollen and red and will be warm to the touch. It is also a very painful infection. This sort of infection typically appears in the lower legs but can also develop on the face and arms. Cellulitis is treated with a round of antibiotics. Left untreated, the bacteria could enter the blood stream and lymph nodes and because life threatening. I chose to mention this infection because I have a resident in the assisted living facility that battles with cellulitis. She is on constant antibiotics to prevent it from developing and still suffers from it occasionally.

2. Describe and autoimmune skin disorder. What is it and what are the causes and possible treatments/cures.

   Psoriasis is an autoimmune skin disorder that develops skin cells faster than usual. This causes the skin cells to build up rapidly on the surface of the skin. Psoriasis appears on the skin as scaly, red patches and can be very painful. There is no known cause of psoriasis, but it is believed to be a result of a weakened immune system. There is no cure for this autoimmune skin disorder but there are many treatments available such as lotions, creams, oral medications and injections.

3. Describe environmental injuries to the skin, how are they treated?

Cold injuries to the skin are a result of prolonged exposure to extremely cold temperatures. This can result in infections of the skin, gangrene, amputation or even death. The cold temperatures cause damage to the capillaries which as a result cause them to be unable to regulate blood flow to the area. This is known as frost bite. Treatment depends on the severity of the damage to the skin through visual examination (by a professional) and the history of the exposure. Treatment consists of applying warmth to the area to recreate blood flow. If damage is so severe that it is unable to be saved, amputation is usually necessary.

4. Describe skin cancer, types, stages and treatments.

   There are three types of skin cancers: Squamous cell carcinoma, Basal cell carcinoma, and Malignant melanoma. Squamous cells are located below the surface layer of the skin. Basal cells are responsible for producing new skin cells and are located underneath the squamous cells. Melanocytes produce melanin which is the pigment that gives the skin its color and is in the lower part of the epidermis. Skin cancer develops from mutations that occur in the DNA of the skin cells. Although not all skin cancers are caused by exposure to the sun, UV rays cause damage to the DNA in the skin, which is a likely start to the process. Treatments for squamous cell and basal cell are similar and can include micrographic surgery, excisional surgery, topical medications, photodynamic therapy, electrosurgery, cryosurgery, and laser surgery. Treatments for melanoma vary depending on the location and stage of the cancer but include minor surgery, major surgery, radiation and chemotherapy.

5. What is the Medical Assistants role in Assisting with procedures in Dermatology?

   The role of a medical assistant in assisting in dermatology is to assist with the dermatologic examination, assist with diagnostic procedures, and to assist with treatments.

6. Describe the "rules of nine"

   Burns that are second degree or higher are categorized by the rule of nines. This is a method that doctors and medical providers use to determine the treatment for the burn. The rule of nines divides the body into percentages that are (for the most part) multiples of nine. The head and neck are 9%, each upper limb is 9%, and the lower limbs are 18%, the front torso is 18% as well as the back of the torso, and the genital area makes up 1%.

7. Describe common parasitic infestations of the skin.

   The two most common types of parasitic infections are scabies and lice. Both parasites irritation to the skin which results in itching and discomfort. Scabies are caused by the itch mite called Sacroptes scabiei. They burrow themselves and live under the skin. The defecation of the mites is what causes the severe itching. Lice can live basically in any hairy part of the body. A person can have head lice, body lice, and pubic lice also known as crabs. Both parasites are easily transmitted person to person through physical contact. They can both be treated with prescribed medications.

8. Name and describe 3 primary lesions, name and describe 2 secondary lesions

   Primary lesions:

   Tumor- This is a solid mass that is larger than 1cm. An example is squamous cell carcinoma.

   Bulla- This is a large blister that is greater than 0.5cm. An example is a blister from a burn.

   Macule- This is a flat area of color change that does not involve elevation or depression.

   Secondary lesions:

   Scales: This is flakes of a cornified skin layer. An example is psoriasis.

   Fissure: This involves cracks in the skin. An example of fissure is athletes foot.

9. Explain the physiology of the Integumentary system

   The integumentary system acts to protect the body from various kinds of damages such as environmental injuries. The integumentary includes things such as hair, nails, hooves, feathers, and scales. The function of the system provides protection to tissues, excretes wastes, regulates body temperature, helps detect pain and pressure, and synthesis of vitamin D.

10. Explain what can be found in the layers of the skin (Anatomy)

The skin is made up of two layers: the epidermis which is the outermost later and the dermis which includes the inner layer. The epidermis is composed of many different strata and epithelial tissues. The epidermis is also avascular which means it has absolutely no vessels in its layer.

11. Explain what Diarthrotic joints are.

There are three types of joints, Diarthroses (synovial) being one of the three which classifies as full rom joints. There are six different types of diarthrotic joints. A hinge joint is one of the six and this type of bone joint permits motion in only one plane (think of a door hinge). Examples of hinge joints would include elbows and knees. This joint requires synovial fluid to move smoothly. A small amount of this fluid is excreted into the joint by the synovial membrane. This fluid is necessary in allowing a painless, wide range of motion in the hinge joint.

12. Choose 2 disorders of the musculoskleletal system and briefly describe

The spine is made up of vertebrae which are separated from each other with a soft “disk”. A herniated disk occurs when it moves out of place or get squished. The disk can rupture causing the soft center of the disk to leak out and cause irritation to the nerves.

Osteoporosis is a condition that causes bones to become brittle and weak. A healthy bone will constantly break down and remodel itself. In someone who has osteoporosis, the bone breaks down faster than it can repair itself which results in weakening of the bones and can easily cause fractures and breaks.

13. Choose a type of arthritis and briefly describe.

Infectious arthritis is also known as septic arthritis. This occurs when there is an infection in the joints. It can be treated with a round of antibiotics.

14. What is the Medical Assistants role in Assisting with Orthopedic examinations?

The medical assistants roll in assisting with orthopedic examinations includes assisting the examination. A medical assistant will have to ask questions about symptoms, their onset, what increases or reduces symptoms, and any OTC medications they may be taking for the issue.

The medical assistant will also have to assist with diagnostic procedures. This includes scheduling and preparing the patients for their procedures.

15. Describe a DEXA scan.

DEXA is an abbreviation for Dual Energy X-ray Absorptiometry. This is an imaging test used to measure bone density. It can specifically measure the calcium and other minerals in the bones.