EDAPT: PERFUSTION AND CLOTTING WK5

1. When perfusion is impaired, the outcome is very similar in all parts of the body. Tissues experience cellular death and a loss of function. Many things can impair perfusion, with one of the largest causes being a blood clot somewhere within the vascular system.
2. What is the goal of perfusion?
    a. Flood the tissues with high amounts of oxygen and nutrients.
3. The amount of blood pumped by the heart each minute?
    a. CENTRAL PERFUSION
4. Volume of blood that flows from arteries to capillaries?
    a. TISSUE
5. RISK FACTORS:
    a. MODIFIABLE
        i. Smoking
        ii. Increased serum lipid
        iii. Obesity
        iv. Sedentary lifestyle
    b. NONFIABLE
        i. Age (more prone to problems)
        ii. Gender (males are more prone)

iii. Genetics

6. To get nutrients and oxygen into tissues, there are three important components, including fluid volume (transport), perfusion, and gas exchange.

7. Once blood reaches and perfuses the tissue, it is up to gas exchange to get those nutrients and oxygen to the cells that need it. Perfusion ensures that every cell is reached.

8. HIGH RISK:

    a. Clients with hyperlipidemia, diabetes, PVD, and arteriosclerosis are high risk for decreased central and tissue perfusion

9. TYPES OF PERFUSIONS

    a. Tissue = skin / local areas

    b. Myocardial = heart

    c. Central = vital organs

    d. Cerebral = brain

10. Arteries carry blood away from the heart to the aorta

    a. Arterioles = smallest branch of arteries leaded to capillaries (GAS AND NUTRIENT EXCHANGE)

    b. Capillaries = connects the arteriole to the venue

    c. Return to the heart via superior and inferior vena

    cava d.

    e.

f. just looking at the skin color, capillary refill (in the fingernails), the color of skin around the lips, or even how alert someone is,

g. CONDITIONS RELATED:

    i. Alert and awake

    ii. Skin temp

    iii. Blood pressure

    iv. Skin color

    v. Recognize bad perfusion

h. COMPLICATIONS

    i. INFARCTION = area of dead tissue

    ii. HYPOXIA = low oxygen supply to the cells

    iii. HYPOXEMIA = not enough oxygen in the blood

    iv. NECROSIS = tissue death

    v. APOPTOSIS VS NECROSIS

    vi. ISCHEMIA= poor perfusion to the tissue/organ

11. RISK FACTORS

a. atherosclerotic heart disease, cause blockages in the vascular system which leads to poor perfusion.

b. Hypertension and dyslipidemia

c. Vascular disease

d. Poorly controlled diabetes mellitus - causes arterial inflammation

e. **Age -** arteries and veins calcify,

f. **lifestyle behaviors -** tobacco, secondhand smoke—and alcohol misuse causes arterial inflammation

g. **Genetic**

CAUSES

a. **MYOCARDIAL INFARCTION = TISSUE DEATH**

b. **CVA = CELL DEATH**

c. **SEPSIS = CELL DEATH**

d. **TRAUMATIC BLOOD LOSS**

e. **PVD**

As we age, we continue to build up blockages in our arteries.

12. Because these blockages increase, sometimes medications that decrease the risk of clotting are started. Clots are more likely to occur in smaller arteries than in larger ones.

13. The tissue experiences cellular death and a loss of function.

14. PREVENTION

    a. PRIMARY

i. diet

ii. exercise

iii. cessation of tobacco

iv. low dose acetylsalicylic acid (aspirin)

v. DASH diet (Dietary Approaches to Stop Hypertension)

vi. weight

management

vii.hydration

viii.

b. SECONDARY

i. Routine physicals

ii. glucose monitoring

iii. lipid screening

iv. hemoglobin A1C monitoring

v. improved access to

healthcare vi.

c. TERTIARY

i. **Collaborative intervention for altered or ineffective perfusion**

ii. healthy lifestyle promotion: nutrition, tobacco use, exercise