

Skin Cancer in African Americans

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Only 5% of sun rays are responsible for sunburns, inflammation, hyperpigmentation, and photo carcinogenesis (Baron, 2020). When thinking of sun rays many terms come to mind, happiness, warmth, tanning, and skin cancer. There are two major types of sun radiation, Ultraviolet B (UVB) which is responsible for sunburns and photo carcinogenesis and Ultraviolet A (UVA) which is responsible for wrinkles and aging (Baron, 2020). Sunburn is an acute inflammation of the skin in response to excessive exposure to UVR, most specifically UVB. Sunburn is a risk factor for developing skin cancer, each time a burn happens DNA is mutated. In the United States, African Americans with melanoma have a five-year survival rate (Culp & Lunsford, 2019). Skin Cancer present slightly different amongst different ethnicities and can be prevented by early detection of change in moles or spots and aggressive preventative measures. This paper will discuss risk factors, treatment, and prevention of melanoma across all ethnicities.

Statement of the Problem

The largest organ of the body is the skin. The main functions of the skin are to regulate temperature, protect against injury & infection, produce vitamin D, and has touch receptors. It is made up of three layers, the epidermis, dermis, and the subcutaneous tissue. The epidermis is the top layer of the skin, it is relatively thin but has five layers. The five layers that make up the epidermis is the stratum Basale, stratum spinosum, stratum granulosum, stratum lucidum, and stratum corneum. Skin Cancer is an abnormal growth of skin cells in the epidermis. There are two main types of skin cancer non-melanoma and melanoma. Non-melanoma skin cancer is slow growing and can be easily treated, they are basal cell carcinoma and squamous cell carcinoma. Melanoma skin cancer is malignant and rapid growing occurring in the melanocytes of the stratum Basale, the deepest layer of the epidermis. African Americans typically get diagnosed with Acral Lentiginous Melanoma (ALM), a subgroup of melanoma with an affinity to present

on palms of that hands, soles of the feet, nail beds and mucosal surfaces (Liu et al, n.d.). With the locations of the lesions on the skin, it can be difficult to diagnosis ALM since it presents on the lower extremities 78.3% of the time (Culp & Lunsford, 2019). The clinical manifestation of ALM is on the nail bed a longitudinal, brown, or black band without dystrophy, on the soles and palms a dark brown to black unevenly pigmented patches in areas that are not commonly exposed to sun (Liu et al, n.d.). Whereas more common melanomas occur in sun exposed areas such as the face, shoulders, and back. Since these signs and symptoms are not commonly known as warning signs preventative measure for ALM it gets under diagnosed in African Americans until further in stages when there is a whole body reaction. Thus, making the survival rate for African Americans significantly less than Caucasians. Leading to mistrust on the nursing community. Being how nurses are doing skin assessments for skin alterations, if they are under educated or not vocal of understanding on presentation of melanoma in African Americans it can leads to mistrust in the nurse-clients relationship. Once trust is broken it is very hard to reestablish it, creating lack of open dialogue and withholding of sensitive information. Being able to inform clients of clinical manifestations can also help determine risk factors.

Risk Reduction/ Treatment

Assessing risks for melanoma is one key component to prevent further development of a new or existing mole. Risk factors include White men over the age of 50, family history of melanoma, one or more benign skin lesions, the red hair phenotype, and sun exposure with significant blistering or sunburns (Geller & Swetter, 2019). A combination of any one of these risks will put one at a greater chance of developing melanoma. When further discussing risk factors such as benign skin lesions it is important to mention they are the common moles, skin tags, freckles, warts, and sunspots. Assessing one's benign skin lesions follow the ABCDE rule,

Asymmetry refers to being even on both side left to right, **B**order refers to the edge of the lesion being abruptly cutoff, or fades, **C**olor refers to the lesion being red, white, light/ dark brown, black or blue gray, **D**iameter refers to the lesion in size, **E**volution refers to the appearance over the years (How people of color can prevent and detect skin cancer, 2017). The red hair phenotype is a term used to explain people with fair skin, red or blonde hair, copious amounts of freckles with blue, green, or hazel eyes (Geller & Swetter, 2019). Caucasians are at greater risk since they produce little to no melanin which contains sun protective qualities. The only modifiable risk factor for melanoma is sun exposure.

A modifiable risk factors is a risk factor that can be changed based on lifestyle choices. Sun exposure is an important modifiable risk factor. Damages to the skin from UVB radiation causes burn and blisters that lead to DNA mutations in the melanocytes. Each purposeful and intense exposure to UVR increases the likelihood of developing melanoma (What Are the Risk Factors for Skin Cancer, 2020). Ways to limit sun exposure is dark colored clothes, wide brimmed hats, sunscreen, seeking shade, and knowing the UV index before going out. Sunscreen is a great way to protect the areas of the body that cannot be covered. Choosing which sunscreen to use is completely based on one's preference. There are two types of sunscreen organic and inorganic, organic sunscreen is usually made from chemicals such as cinnamates and salicylates which absorbs UVB. Inorganic sunscreen is made from compounds such as zinc oxide and titanium dioxide which reflect and scatter UVR (Baron, 2020). For sunscreen to be effective it must be applied copiously, repeatedly, and everywhere that is exposed to sun. Sunscreen also needs to be applied 15-30 minutes before exposure and every 2 hours (Baron, 2020). If all else fails and development of melanoma is evident there are many treatments options to choose from.

There are many treatment plans for melanoma ranging from noninvasive to invasive. Invasive means going into the body with surgical an instrument. First diagnosis needs to be done through blood work, MRI, a shave, punch incision or excision of a lesion. If melanoma is caught early with no metastasizes a surgical excision will be performed with clean margins to remove the lesion. Once metastasizes is confirmed depending on the number and location, surgical metastasectomy can be done to remove the metastasizes along with adjuvant therapy such as radiation and immunotherapy. Immunotherapy is a treatment modality that uses the clients own immune system to produce a response to kill the bad cells in melanoma (Sosman, n. d.). Targeted therapy is another treatment modality that targets the gene response for melanoma, BRAF gene. The BRAF gene activates mitogen-activated protein kinase pathway that causes oncogenesis. Targeted therapy will inhibit the cascade of oncogenes further inhibiting the growth of melanoma (Sosman, n. d.). Treatment modalities are very patient specific, and an in dept conversation about which treatment options are right and beneficial for the diagnosis needs to be discussed with your healthcare provider.

Reflection

After being informed of how little of a survival rate African Americans have when diagnosed with melanoma it made me mad that there is such little information on manifestation of melanoma in African Americans. I can attest to not wearing sunscreen and exposing my skin to a lot of sunlight because of the false sense of security in my melanin. I know there are lifestyle changes that I need to make to decrease my risk. I enjoy learning the different types of formula for sunscreen, I was never the one to use sunscreen but now that I am older it is more important to take better care of my skin. Learning that ALM presents in African Americans in the lower extremities I will do a more thorough assessments of lesions on the legs including the soles of the

feet and toenails. I will also make sure to advocate for my patients that are African American to get annual checks by the dermatologist to prevent metastasis and unnecessary death. While wanting to be an advocate for my patients I know it will be difficult to try to get everyone to follow guidelines to protect their skin. I also am aware that African Americans can be stuck in their ways until a life changing event occurs to them and I will just have to be there for them without an “I told you so” attitude. In conclusion skin care is very important and goes far beyond acne.

Conclusion

Skin Cancer is a structural change in the DNA of the cells in the epidermis. There are two types of skin cancer nonmelanoma and melanoma. Nonmelanoma include squamous cell carcinoma and basal cell carcinoma. Melanoma is the deadliest form of skin cancer. African Americans have a 5% survival rate compared to Caucasians. The low survival rate is related to not enough acknowledge of how ALM in manifested, psychological fear from previous health discrimination, and accessibility. ALM is presented mainly in African Americans it presents on the palms of hands and soles of feet, as well as primarily located in areas that are not sun exposed. Risk factors that increased the chance of developing skin cancer is the same for African Americans and Caucasian, age over 50, family history, sun exposure and benign skin lesions. It is important to apply sunscreen that works well for your skin, apply it every 2 hours and 30 minutes before exposure to sunlight. Therefore, any one is susceptible to skin cancer.

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