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March 2012 "Communicating with Patients-Skin Cancers"

THIS MONTH "Communicating with Patients-Skin Cancers"

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Skin cancers are the most commonly encountered malignancy. The goal of this lesson is to discuss the 3 types of skin cancers.

This lesson provides 1.25 hours (0.125 CEUs) of credit, and is intended for pharmacists in all practice settings. **The program ID # for this lesson is 707-000-12-003-H01-P. Pharmacists completing this lesson by March 31, 2015 may receive full credit.**

To obtain continuing education credit for this lesson, you must answer the questions on the quiz (70% correct required), and return the quiz. Should you score less than 70%, you will be asked to repeat the quiz. Computerized records are maintained for each participant.

If you have any comments, suggestions or questions, contact us at the above address, or call toll free 1-800-323-4305. (In Alaska and Hawaii phone 1-847-945-8050). **Please write your ID Number (the number that is on the top of the mailing label) in the indicated space on the quiz page** (for continuous participants only).

The objectives of this lesson are such that upon completion the participant will be able to:

1. Identify parts of the skin.
2. Differentiate between the 3 types of skin cancers and state the characteristics of each type.
3. List the factors that contribute to skin cancers.
4. Discuss methods of treating skin cancers.
5. Recognize the signs of melanoma.
6. Describe the various methods used in the treatment of BCC and SCC.

BACKGROUND

Skin cancers are the most commonly encountered malignancy. Most cases occur in older individuals or in those whose immune system has been compromised. The disease generally develops in the epidermis. Consequently lesions can be seen by the naked eye and can be detected in the early stages. The incidence and mortality rate of melanoma and non-melanoma skin cancers are on the rise worldwide.

There are three major types of skin cancer: **1) Basal Cell Carcinoma (BCC)** forms in the lower parts of the epidermis; **2) Squamous Cell Carcinoma (SCC)** consists of flat, squamous cells that make up most of the epidermis; **3) Melanoma** is a type of cancer which, unlike the other types, is more dangerous. It is formed in the melanocytes which are the cells that manufacture melanin. The numbers are increasing. Morbidity rate from melanoma among whites is more than in Hispanics and African-Americans.

In order to understand the characteristics of skin cancers, their etiology, importance of early diagnosis and treatment as well as protection of the skin, it is essential to review the basic anatomy and physiology of the skin.

THE SKIN

From the outermost layer to the innermost one, the skin, which acts as the body covering and is considered the largest organ of the body, consists of three major parts: **epidermis, dermis and subcutaneous tissue**.

The **epidermis** is the uppermost layer. It does not contain blood vessels, and, as a result, it receives nutrients by diffusion from the underlying layers. The average epidermal thickness is about 0.1 to 1 millimeter which is comparable to the thickness of a sheet of paper. It is capable of renewing itself every month. The epidermis is composed of three main subsections, each of which has different types of cells. The deepest portion of the epidermis, known as stratum germinativum, consists of keratinocytes that produce the protein, keratin. Basal cells are primarily basal keratinocytes. The keratinocytes rapidly divide and receive nutrients by diffusion from blood vessels located in the dermis. As the keratin is constantly produced, it is pushed upward by the younger keratin. Once keratin moves upward toward the surface of the skin, the cells become flat and deprived of blood supplies, water and nutrients. Ultimately, at the end of their journey to the upper layer of the skin, the keratinocytes die and become dry, forming the horny layer, or stratum corneum, which acts as a protective layer. The dead keratinocytes (keratin) continuously slough off and are replaced by new ones coming from below. Living squamous cells are located immediately below the stratum corneum and appear flat.

The **dermis** lies underneath the epidermis and is composed of collagen and elastin. Collagen is a protein found in connective tissue and provides strength and elasticity to the skin. It atrophies in the elderly and leads to sagging of the skin and formation of wrinkles. Elastin is a protein that imparts elasticity to the skin. Furthermore, it is a component of arteries and assists in blood flow, lung expansion and resilience of the ligaments and bladder. The dermis contains a network of capillaries that lie beneath the epidermis and the upper limits of the dermis. Such capillaries provide nutrients by diffusion to the epidermis which, as mentioned, is devoid of blood vessels. Additionally, the dermis has nerves that provide the sense of touch, hair follicles, sweat and sebaceous glands as well as lymph nodes.

The **subcutaneous tissue** lies beneath the dermis, and it is the deepest layer of the skin. It is made of connective and fatty tissue. About 50% of body fat is found in the subcutaneous tissue. The main role of this layer is to act as an insulator, storage of energy in the form of fat, shock absorber, and it attaches the skin to the underlying bones and muscles.

SKIN CANCER

A cancer is a broad group of malignant neoplasms in which the cells of the organ involved become abnormal and divide uncontrollably. Cancer cells are invasive and may spread to other tissues. Skin cancer is a growth that appears on the skin and has a different etiology and varying degree of malignancy, severity and threat to life.

Contributing factors

There seems to be increased vulnerability to skin cancers when the following contributing factors are involved:

1. Patient exposed to sun frequently and over long periods of time.

Exposure to sunlight either for the purpose of tanning or because of occupational demand can be hazardous and may lead to skin cancer. The incidence of melanoma has doubled in the last ten years, probably due to overexposure to sunlight. Photo aging or premature aging of the skin is characterized by increased wrin-

kling, dryness and thickness of the skin, which appears yellow in color. Unlike aging of the skin as a result of natural processes, photo aging causes degenerative, histological and biochemical reactions that lead to breakdown of the skin's elastin and collagen.

The harmful effect of sunlight is due to ultra violet (UV) radiation. The spectrum of UV radiation consists of three bands, with different wavelengths: **UVA, UVB and UVC**.

UVA (320-400 nm) Radiation has a wavelength similar to visible light and it is the least harmful of the UV radiation bands. However, more UVA radiation reaches the earth's atmosphere than UVB. It is capable of penetrating the dermal layers of the skin and thus may contribute to erythema and other damaging effects such as sensitivity reaction.

UVB (290-320 nm) Radiation is the most active UV radiation and is responsible for erythrogenic and melanogenic effects. It acts as a contributing factor for causing skin cancer, wrinkles and premature aging. The vast majority of UVB radiation is incapable of penetrating the stratospheric ozone layer and little is absorbed by the skin. It is 800 to 1,000 times more intense than UVA. Normal exposure to UVB promotes the synthesis of vitamin D_1 in the skin. Ordinary sunglasses do not filter out UVB radiation.

UVC (200-290 nm) Radiation (germicidal radiation) causes more damage to the skin than either UVA or UVB, but less tanning. However, UVC is absorbed completely by the stratospheric ozone layer. UVC is used during the manufacture of sterile products.

Overexposure to sunlight may cause **acute or chronic** reactions of the skin.

The **acute reactions** are manifested as sunburn and inflammation of the skin. Repeated, prolonged exposure may result in moderate to severe acute reactions where the affected area becomes hot, tender and swollen. The symptoms usually appear within 6 to 24 hours following exposure. Stimulation of the production of both melanin and keratin occurs to protect the underlying tissue. The quick tanning is due to oxidation of melanin present in the reduced state. The main function of melanin is to filter UV light and prevent its harmful effect.

The **chronic reactions** may contribute to acute keratosis, cancer of the skin and degenerative processes of the skin. The elastin fibrous elements, as well as collagen and the fat of the subcutaneous tissue may breakdown, resulting in thinning, sagging and wrinkling of the skin. The epidermis becomes exceedingly dry and may show pre-malignant actinic (solar) keratosis (commonly known as senile keratosis), basal cell carcinoma, squamous cells carcinoma and melanoma.

2. **Persons with light-colored skin** and/or hair are more vulnerable to damage caused by sunlight as well as to skin cancer due to reduced amounts of melanin in their skin**.**
3. **Family history of skin cancer.**
4. **Patients 50 years of age and older** are more likely to have skin cancer due to breakdown in skin components. This occurs as a result of the aging process and the overexposure to sunlight during their lifetime.
5. **Tobacco smokers.**
6. **Patients exposed to ionizing radiation and UV light.**
7. **Patients exposed to harmful environmental causes.**

TYPES OF CANCER

There are three major types of skin cancer: **basal cell carcinoma (BCC), squamous cell carcinoma (SCC), and melanoma.**

Basal Cell Carcinoma (BCC)

Basal cell carcinoma is an abnormal growth or lesion that may appear as an open sore, red patches, shiny, pearly nodules, skin thickening or scar tissue that originates from the skin's basal cells that line the deepest portion of the epidermis. The lesion may have superficial blood vessels and a depressed center. The open sore may persist or may bleed, ooze, or crust, and remain as such for a month or longer only to heal and then open up and bleed again. BCC is the most common type of skin cancer, resulting in 75% of cases. It is the most common of all types of cancers,

accounting for one out of every three new diagnoses. The lesions appear mostly on sun-exposed parts of the body especially the face even though an increase in the incidence of this disease has been noticed on the torso, which is normally not sun-exposed.

BCC is a localized, slow-developing, painless growth that rarely metastasizes to vital organs, but it can cause destruction to healthy surrounding tissues. It is usually not fatal. It can be locally invasive and highly disfiguring if allowed to grow. Occasionally, it is difficult to differentiate between BCC and **actinic keratosis**, which is a small, rough, raised lesion with a gritty sand paper surface and usually formed on sun-exposed parts of the body. Actinic keratosis is considered a pre-cursor to cancer. Its location is usually on the scalp, face or back of the hands. The lesions appear gray, pink or skin color, though they may be covered with white or yellow scales. Biopsy can confirm diagnosis of actinic keratosis.

Diagnosis

Diagnosis of BCC is confirmed via biopsy of the skin. Additionally, the appearance of skin growth and history of the lesions can give indications as to the nature of the growth.

Prevention

Since UV light is considered the main cause of BCC, reduction of the amount of exposure will help in the prevention of the disease. Protection of the skin should be attempted regularly by wearing hats, long sleeved shirts and pants, wearing sunglasses with UV protective coating and using lip balm and sunblock. Avoidance of the midday's intense UV light is recommended. Application of sunscreen with an SPF of 15 or greater at least once daily and more frequently when perspiring and during swimming is recommended. Application of sunscreen should not be limited to summertime. Skin self-examination and observing any change in color, size, texture and appearance are helpful.

Treatment

Treatment of BCC is usually surgical in nature and depends largely on the size, depth, site of lesions, morphology as well as patient compliance. Most procedures are performed on an outpatient basis.

1. **Mohs Surgery** (Mohs Micrographic Surgery): The growth and the layer of the tissue around it are removed and immediately examined under the microscope. If results of the examination indicate that the cancerous cells are still present in the tumor or the surrounding tissue, then the procedure is repeated until the last examination reveals that the tissue examined is tumor-free. The Mohs surgery is considered the most effective technique for removing cancerous cells. Additionally, it saves healthy tissue which may be removed unnecessarily by other methods. Mohs surgery is claimed to have a cure rate of 97% to 99.8%. It is the preferred method for recurring tumors, and inadequately demarcated cancers or those located in delicate areas such as around the eyes, nose, lips and ears.

2. **Standard (Simple) Excisional Surgery**: This pathological procedure involves removal of the cancerous growth together with the surrounding normal skin as a safety margin. The wound is closed by stitching, and the excised tissue is examined microscopically to verify if all cancerous cells have been removed. This method has a cure rate of 90%, and is inferior to Mohs surgery. The cure rate depends on the success of surgical margin (tumor free margin). The recurrence rate of this method is high, especially tumors on the face, and around the eyes and nose.

3. **Radiation**: X-Ray may be utilized to destroy malignant cells. Thin ionizing radiation tends to damage DNA of exposed tissue leading to cellular death. Several treatments may be needed for a few weeks, depending on the effectiveness of the initial therapies. This type of therapy is used to treat tumors that are difficult to remove surgically. Disadvantages of this method are: causation of long-term cosmetic problems, hazard of exposure to radiation and the hardship of multiple visits.

4. **Electrodessication and Cautery (EDC)**: This procedure involves scraping the tumor along with surrounding tissue by use of a curette (a rough knife). The skin is then burned with an electric needle. The heat produced can also destroy residual tumor tissue and control bleeding. The procedure may be repeated a few times to ensure elimination of all malignant cells. The cure rate of electrodessication and cautery is similar to surgical excision, but it may not be effective in treating aggressive BCC or lesions located in difficult to reach sites.

5. **Cryosurgery**: The growth is destroyed by freezing it with liquid nitrogen. No excising or utilizing of local anesthetics is needed. Following treatment the lesions become crusted scabbed and sloughs off. This procedure is an older technique and has less cure and higher recurrence rates than any surgical technique. Furthermore, it is difficult to

control the margins of the lesions, may cause necrosis, may under or over treat the tumor and gives slower cure results.

6. **Photodynamic Therapy (PDT)**: Photodynamic therapy involves the administration of a photosensitizing drug such as porfimer sodium and the use of a specific type of light with a specific wavelength. Following its injection, the dye is distributed throughout body cells including the cancerous ones. Within 24 to 72 hours the drug is eliminated from healthy body cells, but remains in the malignant cells for a longer time. At the end of the 24-72 hours following administration of the drug, the tumor is exposed to a specific light. The photosensitizing drug present in the cancerous cells absorbs the light and causes the release of oxygen that destroys the tumor. The procedure is not FDA approved for treating BCC. Its cure rate ranges from 70% to 90%. Disadvantages of this method are photosensitization at least two days during which the patient should not be exposed to sunlight.

7. **Laser Destruction**: The growth is removed by using a laser. Advantages to laser treatment are that it gives the physician the ability to control the depth of the removed skin and it is cosmetically friendly. This procedure is not FDA approved.

8. **Topical Medications Treatment**: Topical preparations such as creams and ointments may be used in cases where the cancerous cells are superficial and not deep into the skin. **These drugs are: Imiquimod and 5-Fluorouracil**.

Imiquimod combats malignancy by stimulating the immune system, thus it is classified as an immune response modifier. Its exact mechanism of action has not been explained. Very little or no systemic absorption takes place after application. The drug is FDA approved for treating BCC with a cure rate of between 80 to 90 percent. It is available as a 5% cream. Even though Imiquimod is well-tolerated, occasionally it may cause mild to moderate local inflammatory reactions. Other adverse effects include erosion, flaking, pruritus, burning and itching. The preparation should be rubbed into the lesion five times a week for up to six weeks or longer.

5-Fluorouracil (5-FU) is a fluorinated pyrimidine antagonist. It acts as an antimetabolite, interfering with DNA synthesis. It is available as a 5% liquid or cream, which should be applied with rubbing twice daily for three to six weeks. Both preparations are FDA approved for treating BCC. Its cure rate is similar to that of Imiquimod. Adverse effects differ from one person to another. Some patients completely tolerate the use of the drug. Others may experience irritation, erythema, photosensitization, pain and itching.

Squamous Cell Carcinoma (SCC)

Squamous cell carcinoma is uncontrolled growth of malignant cells that originate in the squamous cells located in the epidermis. The disease is sometimes called epidermal carcinoma and squamous epithelioma. It mostly affects sun-exposed parts of the body such as the ears, lower lip, face, bald scalp, neck, back of the hands, arms or legs. However, it may develop on all areas of the body including mucous membranes. The lesions can become large and cause disfigurement and sometimes death if left untreated. Metastatic risk is minimal, but higher than with BCC. When identified and treated early, SCC rarely causes further complications. Once the lesions develop, they appear as scaly, red patches, or open sores that may crust and bleed. The disease is responsible for 700,000 cases annually in the U.S., resulting in about 2,500 fatalities.

The **main causes of SCC** are overexposure to sunlight, using tanning beds or lamps, presence of chronic inflammation, skin infections, HIV, other immune deficiency diseases and chemotherapy. The use of tanning beds and lamps increases the risk of the development of SCC by 2.5 times. Actinic keratosis (AK) may develop into SCC. Some studies indicate that about 2-10% of untreated cases of AK may become SCC and that the starting point for 40 to 60% of all SCCs are AK. Individuals with fair skin are more prone to SCC than persons with dark skin. Patients who have had BCC are vulnerable to develop SCC. The disease is more common among men than women and usually strikes after the age of 50. Other causes and risk factors are similar to those of BCC.

Prevention, treatment and prognosis

Same as previous discussion regarding BCC.

Melanoma

Melanoma is a malignancy that forms in the melanocytes (melanin forming cells) located in the lower part of the epidermis. Even though the vast majority of melanoma occurs in the skin, it is encountered in other parts of the body that contain melanocytes, such as the colored parts of the eye. On rare occurrences, it develops in the mouth, iris, and

retina of the eyes, vagina, esophagus, anus, urinary tract and intestine. The incidence of this disease is much less than that of BCC and SCC, but it is more dangerous, aggressive and metastatic and causes the majority of fatalities caused by all skin cancers. Its most common sites in men are on the back, head and neck and in women on the arms and legs. Although melanoma occurs usually in adults, it may be encountered in children and teenagers. Melanoma may develop on normal skin or may start in a mole already present. **Melanoma appears as four types**:

1. **Superficial spreading melanoma** is the most common and appears as a flat lesion having irregular shape and color.
2. **Nodular melanoma** begins as a raised, black-bluish, firm growing area, but sometimes the affected region is colorless. It is considered the most dangerous type of melanoma.
3. **Lentigo malignant melanoma** is usually encountered in the elderly, especially in patients whose skin has been damaged by many years of exposure to sunlight. The growth is mostly found on the face, neck and arms. The lesions appear flat and brown in color.
4. **Acral lentiginous melanoma** is less common than the other three types and usually occurs on the palms, soles and under the nails.

Signs

The early signs of the formation of melanoma include changes in the shape and color of an existing mole, or the emergence of a nodule. Itching, bleeding and ulceration of an existing lesion are signs of progression and expansion of the disease. Regular self-inspection of the skin is important for noting any changes.

The **"ABCDE" system** is helpful in remembering what needs to be observed.

- **Asymmetry**: The area of the growth is asymmetrical.
- **Borders** of the lesion are irregular.
- **Color** is uneven or more than one color which may appear as black or brown.
- **Diameter** greater than 6 mm is suspicious.
- **Evolution** indicating changes in appearance over time. It may ooze, bleed or become ulcerated. Other moles may appear near an existing one.

Causes and Risk Factors

Exposure to sunlight and the use of tanning beds and lamps play a major role in causing melanoma. The UV light emitted by the sun causes DNA damage inside the skin cells. Over time the damage builds up and causes the cells to grow uncontrollably, resulting in the development of cancer. Furthermore, the DNA damage can be inherited in the form of mutation and increasing the vulnerability to the occurrence of melanoma. Intense exposure to sunlight during childhood may increase the risk of the disease. The presence of melanocytic nevi (marking on the skin such as moles and birth marks), which usually develop during childhood and adolescence, may play a role in the development of melanoma years later. Fair-skinned persons, especially those with freckles, are more prone to melanoma.

Melanoma is initiated when melanocytes begin to multiply out of control forming a tumor less than 1 mm in thickness. At this stage the cancerous cells are not in contact with blood vessels, and, as a result, the chance for the spread of the disease is very low. If diagnosed early, the cancer can be removed surgically without further complications. If left untreated, cancerous cells begin to move up toward the epidermis and down into the papillary dermis (uppermost layer of the dermis). At this stage of development, the tumor is well developed, but remains localized in its original site. If undiagnosed and untreated, the next step is capable of invading the surrounding tissue of the skin and spreading regionally to certain parts of body organs via blood vessels or lymph nodes. After this the thickness of the tumor becomes more than 1 mm and it penetrates deeper into the dermis. The last stage occurs when the tumor spreads to distant organs (metastasis).

Diagnosis

There are no blood tests that determine the presence of melanoma. The majority of pigmented skin lesions, such as melanoma, can be diagnosed visually through the ABCDE system. However, in fair-skinned persons it is often difficult to detect any of the signs stated in the ABCDE system. Patients with family history of skin cancer, fair skin, pigmented growth and history of exposure to sunlight should be examined regularly by a physician. A skin biopsy performed under local anesthesia is the method of choice for confirming the presence of malignant cells as well as the

extent of progression and thickness of the melanoma. Six out of seven melanomas are diagnosed at a stage when the growth can be surgically removed and cure is attained.

The skin biopsy may reveal one of the following:

1. No malignancy and the tumor is benign and no treatment is required.
2. An abnormal growth, but does not have melanoma characteristics. Such growth as well as the surrounding tissue should be removed.
3. Melanoma is confirmed and surgical removal by dermatoscopy or any other procedure is required.

Prognosis

Outcome or prognosis is determined by the thickness of the melanoma. Prognosis for melanoma with thickness less than 1mm is excellent. The thicker the lesion, the less the cure rate. Furthermore, the earlier the diagnosis and treatment, the better chance of elimination of the melanoma. Regular visits to a physician help in the detection of recurrences.

Melanoma that metastasizes usually occurs via the lymph nodes. They are found throughout the body and are connected to each other by lymphatic vessels. Melanoma first metastasizes in the vicinity of the tumor and in later stages to other organs of the body. There is always the risk of recurrence of melanoma, especially in patients who did not take precautions such as avoiding exposure to sunlight and environmental pollutants. However, there are risk factors beyond the patient's control such as age, complexion of the skin and heredity.

Treatment

Cure from melanoma is achievable mainly through surgery, but this depends on the thickness, depth and location of the tumor. Melanoma whose progression did not go beyond the epidermis is treated by surgery along with removal of ½ centimeter of the surrounding healthy tissue. Some physicians may attempt to use a topical preparation such as Imiquimod first in case the tumor is located on the face where the surgery may be disfiguring. However, many clinicians have reservations about this approach. When the thickness of the melanoma is less than 1 mm, then the tumor as well as 1 centimeter of the surrounding normal skin is removed. Melanoma where thickness is 1 to 2 mm is usually removed together with 1 to 2 centimeters of normal skin from all sides. If the melanoma is thicker than 2 mm, about 2 centimeters of healthy skin from around the tumor site is removed. At such a depth melanoma may have metastasized to areas adjacent to the tumor and as a result sentinel lymph nodes should be removed. In cases where the melanoma has reached a thickness of 4 mm or the lymph nodes contain cancerous cells, then adjuvant therapy with interferon and surgery may be used. If the lymph nodes are found to be cancerous at the time of diagnosis, then the lymph nodes are dissected and 2 centimeters of normal skin is removed. Radiation therapy may be used at the regional sites or in cases where a number of lymph nodes are found to be cancerous. Other treatments include the use of chemotherapy, and immunotherapy with cytokines. In cases where the melanoma has spread to distant lymph nodes or other organs, the tumor along with lymph nodes should be removed. Melanoma that metastasizes in body organs may be removed depending on the number and location. Tumors that are difficult to remove surgically may be treated using radiation, immunotherapy (ipilimumab) or chemotherapy (decarbazine or temozlomide). These two drugs may cause shrinkage of the tumor, but such therapy is usually short-lived with an average of from 3 to 6 months before its recurrence.

SUMMARY

Skin cancer is a common disease, counting far more than all types of cancer combined. There are three types of skin cancer: Basal Cell Carcinoma, Squamous Cell Carcinoma, and Melanoma. Melanoma is less common than BCC and SCC, but is more dangerous and if not diagnosed and treated early it can be fatal. Several factors can contribute to cancer of the skin: over-exposure to sunlight, aging, family history, and color of the skin. The cure rate with surgery is excellent, but depends on early detection.

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LESSON EVALUATION

Please fill out this section as a means of evaluating this lesson. The information will aid us in improving future efforts. Either circle the appropriate evaluation answer, or rate the item from 1 to 7 (1 is the lowest rating; 7 is the highest).

1. Does the program meet the learning objectives?

Identify parts of the skin	Yes	No
Differentiate between the 3 types of skin cancers & state characteristics of each	Yes	No
List factors that contribute to skin cancers	Yes	No
Discuss methods of treating skin cancers	Yes	No
Recognize signs of melanoma	Yes	No
Describe various methods used in treatment of BCC & SCC	Yes	No

2. Was the program independent & non-commercial Yes No

	Poor			Average		Excellent	
3. Relevance of topic	1	2	3	4	5	6	7

4. What did you like most about this lesson?_____

5. What did you like least about this lesson?_____

Please Select the Most Correct Answer(s)

1. The deepest section of the epidermis is:
   A. Stratum germinativum
   B. Stratum corneum
   C. Dermis
   D. Elastin
2. Which UV band is responsible for erythrogenic & melanogenic effects?
   A. Visible light
   B. UVA
   C. UVB
   D. UVC
3. Which of these is NOT considered a contributing factor for skin cancers?
   A. Over exposure to sunlight
   B. Aging
   C. Family history
   D. Gender
4. UV light from the sun induces formation of damaged DNA.
   A. True B. False
5. Which of these is considered the most effective method to remove skin cancer?
   A. Electrodessication & cautery
   B. Mohs surgery
   C. Cryosurgery
   D. Photodynamic therapy
6. Which of these drugs is an immune response modifier?
   A. Imiquimod
   B. Decarbazine
   C. Temozlomide
   D. 5-Fluorouracil
7. Which of these is the most dangerous?
   A. Superficial spreading melanoma
   B. Acral lentiginous melanoma
   C. Nodular melanoma
   D. Lentigo maligna melanoma
8. A disadvantage of using ipilimumab is:
   A. Stimulation of cancer in healthy tissue
   B. Serious photosensitivity
   C. Severe anemia
   D. Cancer recurs after initial shrinkage
9. The risk of metastasis in SCC is:
   A. High
   B. Minimal
   C. None
   D. Moderate
10. Which blood test determines melanoma?
    A. CBC
    B. ESR
    C. MCV
    D. No test available

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