

Skin Cancer

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Introduction

Skin cancer is the most common human cancer in the world.

Its source can be epidermal cells , melanocytes , follicles , sebaceous glands , subcutaneous tissue , and metastasis of other organs.

There is two main category of cancer in skin :

1- cancer with epidermal source in two groups of Basal cell carcinoma and squamous cell carcinoma which prognosis of both is good and include about 90%of skin cancer

2- cancer with melanocyte source that it has bad prognosis and include 10% of skin cancer and is malignant melanoma. almost 60% of death of skin cancer is due to this kind of skin cancer that past 70 years ago had increased

Incidence rates

Skin cancer is the most common human cancer in the world and in USA.

Current estimates are that one in five Americans will develop skin cancer in their

lifetime. Researchers estimate that 5.4 million cases of nonmelanoma skin cancer, including basal cell carcinoma and squamous cell carcinoma, were diagnosed in 3.3 million people in the United States in 2012.

Study in 2005 found that basal cell carcinoma and squamous cell carcinoma are increasing in men and women under 40. In the study, basal cell carcinoma increased faster in young women than in young men.

It is estimated that 137,310 new cases of melanoma, 63,440 noninvasive (in situ)

and 73,870 invasive, will be diagnosed in 2015.

Invasive melanoma is projected to be the fifth most common cancer for men (42,670 cases) and the seventh most common cancer for women

(31,200 cases) in 2015.

Melanoma rates in the United States doubled from 1982 to 2011

By 2015, it is estimated that one in 50 Americans will develop melanoma in their lifetime.

Caucasians and men older than 50 are at a higher risk of developing melanoma than the general population.

The incidence in men ages 80 and older is three times higher than women of the same age.

The annual incidence rate of melanoma in non-Hispanic Caucasians is 25 per 100,000, compared to 4 per 100,000 in Hispanics and 1 per 100,000 in African-Americans.

In people of color, melanoma is often diagnosed at later stages, when the disease is more advanced.

Before age 50, melanoma incidence rates are higher in women than in men, but by age 60,

Melanoma in Caucasian women younger than 44 has increased 6.1 percent annually, which may reflect recent trends in indoor tanning.

Melanoma is the most common form of cancer for young adults 25-29 years old and the second most common form of cancer for adolescents and young adults 15-29 years old.

Melanoma is increasing faster in females 15-29 years old than in males of the same age group.

From 1973 to 2004, melanoma incidence among males age 15 to 39 increased by 61 percent, while incidence among females in the same age group more than doubled.

While melanoma in children is extremely rare, from 1973 to 2009, the rate of melanoma increased by about 2 percent per year among Caucasian children from newborn to age 19 in the United State.

The most ten common cancer In Fars in women ordinary are :

1- breast 2-skin 3- colon and rectum 4-thyroid 5-leucemia 6- stomach 7ovary
8- uterus 9-brain 10-esophagus

The ten common cancer in men in Fars are:

□ 1-skin 2- blader 3-prostat 4- stomach 5- colon and rectom 6-lochemia 7-
lung 8 non hodgcin lymphoma 9-brain 10- esophagus, rates are twice as
high in men as in women.



Mortality rates

- Approximately 75 percent of skin cancer deaths are from melanoma.
- On average, one American dies from melanoma every hour. In 2015, it is estimated that 9,940 deaths will be attributed to melanoma — 6,640 men and 3,300 women.
According to a recent study, men diagnosed with melanoma between the ages of 15 and 39 were 55 percent more likely to die from melanoma than females diagnosed with melanoma in the same age group.
- An estimated 6,230 deaths from skin cancers other than melanoma and NMSC will occur in the United States in 2015.
- The World Health Organization estimates that more than 65,000 people a year worldwide die from melanoma

Survival rates

- Basal cell and squamous cell carcinomas, the two most common forms of skin cancer, are highly curable if detected early and treated properly.
- The five-year survival rate for people whose melanoma is detected and treated before it spreads to the lymph nodes is 98 percent.
- Five-year survival rates for regional and distant stage melanomas are 63 percent and 16 percent, respectively

Risk factors

Age

Skin cancer is raised with increasing the age

Peak of the age is 40-50 years old

Malignant melanoma is more common in young and middle age people

Sex

BCC and SCC are one and half in men

Race

Skin cancer is more common in white people with ratio of 20 to one

Genetic

Malignant melanoma is seen in chromosomal defect on chromosome number

16

Occupation

Every exposure with radioactive and chemical martial could be dangers

Exposure to natural and artificial ultraviolet light is a risk factor for all types of skin cancer.

Avoiding this risk factor alone could prevent more than 3 million cases of skin cancer every year.

Sun exposure

Increasing intermittent sun exposure in childhood and during one's lifetime is associated with an increased risk of squamous cell carcinoma, basal cell carcinoma and melanoma.

Experiencing five or more blistering sunburns between ages 15 and 20 increases one's melanoma risk by 80 percent and nonmelanoma skin cancer risk by 68 percent.

In 2010, new research found that daily sunscreen use cut the incidence of melanoma, the deadliest form of skin cancer, in half.

People older than 65 may experience melanoma more frequently because of UV exposure they've received over the course of their lives.

Higher melanoma rates among men may be due in part to lower rates of sun protection.

Exposure to tanning beds increases the risk of melanoma, especially in women 45 and younger.

Researchers estimate that indoor tanning may cause upwards of 400,000 cases of skin cancer in the U.S. each year. In females 15 to 29 years old, the torso/trunk is the most common location for developing melanoma, which may be due to high-risk tanning behaviors.

Higher melanoma rates among young females compared to young males may be due in part to widespread use of indoor tanning among females.

Risk factors for all types of skin cancer include skin that burns easily; blond or red hair; a history of excessive sun exposure, including sunburns; tanning bed use; immune system-suppressing diseases or treatments; and a history of skin cancer.

Mole

People with more than 50 moles, atypical moles, or large moles are at an increased risk of developing melanoma, as are those with light skin and freckles, and those with a personal or family history of melanoma.

Melanoma survivors have an approximately nine-fold increased risk of developing another melanoma compared to the general population.³¹

History

Men and women with a history of non melanoma skin cancer are at a higher risk of developing melanoma than people without a non melanoma skin cancer history.

Women with a history of non melanoma skin cancer are at a higher risk of developing leukemia, breast, kidney and lung cancers, and men with a history of non melanoma skin cancer are at a higher risk of developing prostate cancer.

Latitude

When we closed to equator the incidence rate is increasing

Socioeconomic factor

Skin cancer is more common in low socio people
It is more common in industrial countries

BASAL CELL CARCINOMA: OVERVIEW

Basal cell carcinoma (BCC) is the most common form of skin cancer.

More than two million cases of this skin cancer are diagnosed in the United States each year.

This skin cancer usually develops on skin that gets sun exposure, such as on the head, neck, and back of the hands. BCC is especially common on the face, often forming on the nose. It is possible to get BCC on any part of the body, including the trunk, legs, and arms.

People who use tanning beds have a much higher risk of getting BCC. They also tend to get BCC earlier in life.

This type of skin cancer grows slowly. It rarely spreads to other parts of the body.

Treatment is important because BCC can grow wide and deep, destroying skin tissue and bone.

SQUAMOUS CELL CARCINOMA: OVERVIEW

Squamous cell carcinoma (SCC) is a common skin cancer in humans.

About 700,000

new cases of this skin cancer are diagnosed in the United States each year.

This skin cancer tends to develop on skin that has been exposed to the sun for years. It is most frequently seen on sun-exposed areas, such as the head, neck, and back of the

hands. Women frequently get SCC on their lower legs.

It is possible to get SCC on any part of the body, including the inside of the mouth, lips, and genitals.

People who use tanning beds have a much higher risk of getting SCC.

They also tend to get SCC earlier in life.

SCC can spread to other parts of the body. With early diagnosis and treatment, SCC is highly curable.

Prevention and detection

Because exposure to UV light is the most preventable risk factor for all skin cancers, for primary prevention, the American Academy of Dermatology

encourages for primary prevention, everyone to protect their skin from the sun's harmful UV rays by seeking shade, wearing protective clothing and using a sunscreen with a Sun Protection Factor of 30 or higher.

Because severe sunburns during childhood may increase one's risk of melanoma, children should be especially protected from the sun.

People should not use tanning beds or sun lamps, which are sources of artificial UV radiation that may cause skin cancer.⁷

Skin cancer warning signs include changes in size, shape or color of a mole or other skin lesion, the appearance of a new growth on the skin, or a sore that doesn't heal. If you notice any spots on your skin that are different from the others, or anything changing, itching or bleeding, the American Academy of Dermatology recommends that you make an appointment with a board-certified dermatologist.

The other way for primary prevention is more usage of retinol, avoidance of exposure with carcinogens such as arsenic , hydrocarbons, x-ray ,..high dose of selenium(more than 200 microgram per day)