

Risk Factors and Preventive Measures of Melanoma

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Description

Melanoma is a cancer that develops in the pigment cells of the skin (melanocytes). Melanin is produced by melanocytes, which helps protect the skin from ultraviolet (UV) radiation, which is sunlight. When melanocytes come together in the skin during childhood or adolescence, they form moles. Most moles are fairly safe, but sometimes the melanocytes in moles begin to grow and divide uncontrollably. If they start to grow in an unregulated manner, expanding outward or downward into the lower layers of the skin, they will turn into "Melanomas". Melanoma is the most serious type of skin cancer, and if left untreated, it will grow rapidly. It can spread to the lower part of the skin (dermis), enter the lymphatic system or blood, and then spread to other parts of the body, for example; lungs, liver, brain and bones. Melanoma, which implies "black tumour", is the most dangerous type of cancer. It grows rapidly and has the ability to spread to any organ. Melanoma comes from cells in the skin called melanocytes. These cells produce melanin, which provides the skin its colour. Most melanomas are black or brown, but some are pink, red, purple, or skin tone. About 30% of melanomas start with existing moles, but the rest start with normal skin. This makes it particularly important to concentrate to changes within the skin, because most melanomas don't start with moles. However, its mole percentage can help predict the risk of melanoma on your skin. It is important to know if you are in a high risk group for melanoma cancer. Due to the rapid growth of melanoma, delays in treatment can sometimes mean the difference between life and death. Knowing your risk can help you be more vigilant when looking for skin changes and performing skin examinations, because if melanoma is detected early, the cure rate can reach 99%. Early detection is crucial, because the success of treatment is directly related to the depth of cancer.

Causes

Most experts agree that a serious risk factor for melanoma is excessive exposure to the sun, especially sunburns at young age. Statistics tell us that 86% of melanomas are caused by the sun's ultraviolet rays (UV). How does the sun cause skin cancer? Exposure to ultraviolet light can damage the cell's DNA and change specific genes that affect the way cells grow and divide. When the DNA in your skin is damaged and human cells begin to multiply, potential problems will arise. Ultraviolet radiation from tanning beds can also increase the risk of melanoma and has

been designated a carcinogen by the World Health Organization. Sunbed use may also be linked to more than 6,000 cases of melanoma in the United States each year.

Although anyone can get melanoma, the risk of melanoma is found to increase in the following groups:

- (a) People have a history of melanoma.
- (b) Family history of melanoma
- (c) Fair skin, freckles, golden or red hair and blue eyes
- (d) Sun exposure, blistering sunburn.

One direction near the equator or high altitude: Living in these places increases your chances of exposure to ultraviolet light. Melanoma is more common in whites, but it can occur in people of all skin types. People with darker skin often develop melanoma on the palms of the hands, the soles of the feet, and the nails.

When cancer is found early, melanoma generally has a good prognosis. If the disease does not spread to the surface of the skin, a simple operation is enough to cure the cancer [1-3].

Prevention

The primary prevention of melanoma requires understanding the cause. Although a large number of possible causal factors are being investigated, in most studies so far, exposure of people at physical risk of melanoma to sunlight is the only environmental factor that is consistently associated with melanoma. The previous section mentioned physical risk factors (or tendencies). The exact relationship between sun exposure and melanoma risk is not fully understood. Epidemiological studies have shown that occasional high exposure can cause sunburn, especially in childhood, which is important. These studies show that not only childhood exposure is important. However, immigration studies clearly show that extensive exposure to sunlight during childhood lays the foundation for the high incidence of melanoma in adulthood. A history of sunburn in childhood is a risk factor, although it is unclear whether this is a global sign of large exposure at that age or the infant's skin's special sensitivity to excessive sunlight. The frequency of sunburn is also related to age and gender. The sun protection factor of teenagers and young people is higher than that of the elderly, and men are higher than women. The behavioural method of sun protection also varies with age and gender. Women are more likely to use sunscreen than men, and

young people are more likely to use sunscreen than older people.

On the other hand, men are more likely to wear hats than women, and older people are more likely to wear hats than young people. Everything mentioned so far comes from behavioural research. They are useful for determining the goals and entry points for developing further education programs. In addition to staying indoors, there are many ways to reduce sunlight exposure. Various combinations of avoiding sun exposure at noon, wearing hats and clothing, looking for shade outdoors, and applying sunscreen can significantly reduce exposure. Nature conservation is recommended as the best protection. Sunscreen should be promoted as a supplement to nature protection, not as a substitute. Sunscreens are rated based on UVR absorption under laboratory conditions. The Sun Protection Factor (SPF) rating is determined by measuring the increase in the ratio of the UVB dose required to cause minimal skin erythema when using the tested product to the dose required when the skin is unprotected. Therefore, the product required four times the dose of UVB has a rating of SPF4. At present, it is difficult to develop a satisfactory method to measure the effectiveness of sunscreens on the body within the UVA range [4-6].

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