INTERNATIONAL SKIN CANCER'DAY

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BY THE CENTER FOR THE DEVELOPMENT OF BEST PRACTICES IN HEALTH
WHAT IS SKIN CANCER?
Skin cancer is manifested by the uncontrolled and abnormal proliferation of skin cells, and more specifically of the epidermis, the outer layer of the skin. This pathological multiplication is caused by unrepaired DNA lesions, which lead to mutations of these cells, coming to form a malignant tumor. Skin cancers are mainly caused by UV exposure, which comes either from the sun or from artificial sources such as tanning booths. In 2020, more than 1.5 million cases of skin cancers were diagnosed and more than 120,000 associated deaths were reported worldwide. Much of UV-related illness and death can be prevented with a set of simple prevention measures, such as limiting time in the sun at midday, seeking shade when UV rays are most intense, wearing protective clothing, hats and sunglasses - as well as using sunscreen.

THE CATEGORIES OF SKIN CANCER
There are several types of skin cancers, their characteristics are different depending on the cells from which they arise.

Cutaneous carcinomas
The so-called "basal cell" carcinomas arise from cells located deep in the epidermis (the most superficial layer of the skin). It is the most common form of skin cancer. Basal cell carcinomas only evolve locally and never form metastases, i.e. they do not spread to other organs. They are generally located on the face, at the level of the neck or on the top of the trunk.

“Spinocellular” carcinomas start from cells located on the surface of the epidermis. Their evolution is more risky than for the basal cell form, they have an increased capacity to form metastases. They can develop on all parts of the body, but also in the oral or genital mucous membranes.
Melanomas
Melanomas are tumors that form from melanocytes, the cells in charge of producing melanin, the molecule that gives skin its pigmentation. Initially, melanomas grow horizontally and then spread into deeper layers of the skin. A distinction is thus made between in situ melanomas, restricted to the epidermis, and invasive melanomas, having reached the dermis (the middle layer of the skin, under the epidermis). Melanoma is the most aggressive type of cancer, forming metastases (extensions within the body) more easily than the others.

WHAT IS THE SITUATION IN CAMEROON?
In Cameroon, skin cancer is a public health problem. It is a frequent pathology in young adults. The most common skin cancers are Kaposi’s sarcoma and squamous cell carcinoma. Kaposi’s disease often linked to HIV is the leader. Carcinomas are ranked 2nd in the ranking.
Immunohistochemistry, although embryonic, is already available in our country and represents a significant asset which would benefit from being supported by the public authorities and popularized with a view to the adequate management of our patients as soon as this pathology is suspected (Mendouga Menye and al., 2023). Skin cancer in Cameroon can be associated with albinism and HIV, as well as intentional depigmentation by carcinogenic cosmetic products because they contain dangerous levels of substances that inhibit the production of melanin, the pigment produced by the Sun exposure. In particular hydroquinone, banned since 2001 in the European Union because of its carcinogenic and mutagenic potential.

WHAT ARE THE MANIFESTATIONS OF THE DISEASE?
As for melanoma, it develops in several stages. There is a small burning black spot of a rounded or oval shape. Subsequently, the size increases, the surface changes its appearance and becomes darker black. At a more advanced stage, the surface of this spot may appear irregular or bumpy with a blurred outline, and if injured, this spot may bleed easily.
WHAT ABOUT THE RISK FACTORS?

There are two main types of risk factors for skin cancer: environmental and individual risks.

The most important environmental factor is exposure to ultraviolet (UV) radiation, whether natural (the sun) or artificial (tanning booths).

According to Santé Publique France, more than 80% of skin cancers are linked to excessive exposure to the sun!

UV rays have the ability to cross the different layers of the skin and the cell membrane: they can then cause damage to the DNA of cells, which can lead to their transformation into tumor cells. We then understand why the main means of preventing skin cancer is still and always to protect yourself from the sun: exposure to hours when the sun’s rays are weakest in summer, protection with sunscreen and wearing clothing that does not allow UV rays to pass through.

The individual risk factors are as follows:

- family history of skin cancer,
- the skin type: several phototypes have been identified, depending on the color of the skin and hair, which reflects the sensitivity of the skin to UV rays: the weaker the phototype, the greater the risk,
- exposure to the sun during childhood: repeated sunburns at this stage increase the risk of skin cancer in adulthood,
- the presence of a large number of freckles or moles,
- a weakening of the immune system.

HOW DO YOU GO ABOUT DIAGNOSING?

The diagnosis is clinical. But, the confirmation of the type of skin cancer is done from the anatomo-pathological examination, after a biopsy of the lesion which shows, according to the cellular differentiations, the etiological type of the skin cancer. Tell us about the treatment. Skin cancer is usually treated with surgery. Surgeries usually incise an additional area around recommended skin tumors called excision margins to reduce the risk of recurrence. This depends on the stage of evolution of the cancer and either chemotherapy is combined before or after surgery, or radiotherapy.
WHAT ARE THE APPROPRIATE TREATMENTS?

Treatments vary depending on the severity and extent of the cancer at the time of its discovery.

Surgery is the treatment of first choice. The aim here is to remove the incriminated lesion completely and extensively, in order to eliminate all the cancer cells and thus avoid the spread and recurrence of the disease. Surgery can also be applied to remove any metastases (extensions of the tumor). Among the techniques used, in addition to excision, we can mention cryotherapy, to burn the lesion, or laser surgery for lesions that are not very advanced.

The last decade has been marked by the appearance of new treatments indicated for the management of melanoma: immunotherapy. It involves stimulating the immune system to attack cancer cells. These treatments have made it possible to truly change the prognosis of patients suffering from the most severe forms of the pathology. Targeted therapies are also an innovative treatment route in the case of melanomas. These are molecules that target certain molecular mechanisms specific to cancer cells in order to block them. Radiotherapy can be used if surgery is not enough to eradicate the entire tumor and the associated metastases. Finally, chemotherapy (use of more traditional anti-cancer molecules) can be tested if other therapies have failed.

WHERE IS THE CURRENT RESEARCH?

Improving these treatments and discovering new molecules are the main challenges of current research. In particular, it involves finding new therapeutic targets that can be used in cancer cells and which make it possible to develop more effective targeted therapies. Optimizing the use of existing treatments is also an avenue being explored. Thus, trials combining immunotherapies and targeted therapies are being carried out with a view to combating the most aggressive forms of cancer.
Such therapeutic combinations could improve the prognosis of patients. It is also a question of better knowing when the use of immunotherapy is most effective: thus, certain trials aim to evaluate the effects of the administration of immunotherapy before surgery, with the first promising elements in favor of this approach. There is also research done on the screening side, teams have also looked at using artificial intelligence to analyze skin images, such as moles, in search of possible skin cancers in formation. Some experiments show the interest of this approach to help the dermatologist to make his diagnosis in the future.

**RECOMMENDATIONS**

- Avoid exposure between 12 and 4 p.m.
- Cover your body and wear sunglasses.
- Apply sunscreen every 2 hours and systematically after swimming. Be careful, sunscreen does not allow you to be exposed for longer.
- Especially protect children and adolescents.
- Do not expose yourself to UV tanning lamps. There is no need to try to prepare your skin for the sun by exposing yourself to UV tanning lamps.
- Avoid cosmetics and personal hygiene products containing substances such as hydroquinone, mercury or corticosteroids.
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