Skin cancer: how to explain to patients what they are suffering from in simple but professional communication

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Abstract

In the case of a suspicious skin mole, the question always arises as to whether it is benign or malignant. Is it a harmless mole, a capillary malformation or a basal cell carcinoma, squamous cell carcinoma or even a melanoma? Often the nevus can already be assessed by a close examination of the lesion and a few questions regarding its development. But most important: the patients need to be informed about their condition in a simple but professional way.

Introduction

Pigmented lesions are an extremely common phenomenon, everyone has such nevi, popularly known as “birthmarks” or “moles”. Moles usually form from pigment-forming cells called melanocytes. Pigment cell nevi can vary considerably in shape, color and size. They are usually brownish-black in color, flatly symmetrical, sharply demarcated or even slightly raised. Many nevi are only the size of a pinhead, but they can also be more than the size of a palm, and it is not uncommon for such giant cell nevi to have hair within the malformation. As a rule, these skin abnormalities are harmless. Nevertheless, caution is advised, because moles can degenerate malignantly and a cancerous skin tumor can develop in an apparently harmless birthmark. Skin cancer cells very often also arise from totally normal skin; it’s a dangerous misconception that skin cancer could only develop in an already existing nevus. As a patient one should be alert if a new mole appears or an existing one suddenly starts to change, for example if it gets larger or thicker, changes colors (not only to black), or if it develops symptoms like a more or less constant itch, bleeding, etc.[1,15,16,18]

Warnings, misunderstood

When diagnosing a benign nevus in particular, patients are still irritated by too many complicated technical terms. The warning about skin cancer and the lack of distinction between "white" and "black" skin cancer has caused considerable anxiety among the population in many countries, especially false fears, as there is a great lack of knowledge about nevi and skin cancer among the population. Skin cancer awareness campaigns have been very successful in generating attention, but alarm without knowledge leads to irrational fears, not sophisticated vigilance. This has led to a very lucrative " prevention screening" industry that is nothing short of utter nonsense, because melanomas grow so fast that the "all clear" on a checkup is already invalid as soon as the patient leaves the dermatologist's office. With fast-growing cancers like melanoma, what is needed is an informed and vigilant public that has quick access to a dermatologist without wasting time in a primary care physician's office.[1-3]

Benign lesion

As a consequence of the aforementioned facts, dermatologists must choose their words very carefully, even if they have good news (benign lesion) for the patient. One must be almost more careful in one's wording than when communicating a problematic examination finding. After all, details of a dermatoscopy or a pathologist's report are completely irrelevant to a patient. All she/he needs to know is: benign or not?

We have already explained in another article why suspicious lesions should be surgically removed right away. In this respect, after a full-body examination, the patient should leave the dermatology practice only with the information "everything is fine" or "everything is fine again, as all suspicious lesions have been removed".[1,2]

What the patient needs to know:

- *Are all my moles just moles?*
- *Were all suspicious lesions removed?*

Actinic keratosis and squamous cell carcinoma (SCC)

Actinic keratosis, which usually appears as a skin-colored, reddish or reddish-brown, firmly adhering roughness of the skin surface, is to be distinguished from moles. There is often mild whitish scaling and keratinization that increases over time. The lesions are caused by UV light and therefore form preferentially in the area of the so-called light terraces of the body - i.e. on the face, on the forehead, on the cheeks, on the bridge of the nose, on the auricles, on the lips as well as on the hairless scalp (bald head) and on the back of the hands. They can gradually increase in size, but do not initially cause any particular discomfort. The changes are therefore often not taken seriously, but according to the IAAT doctor's association they can represent the preliminary stage of a squamous cell carcinoma (SCC) which is not as aggressive as a melanoma but by far not as well manageable as a basal cell carcinoma. They should therefore be treated without exception. In Europe, about 15% of men and 7% percent of women have actinic keratosis, with the incidence increasing with age. Light-skinned people are particularly affected, especially if they had frequent sunburns in their childhood and youth.[4,9,10]

The patient needs to know:

- *Actinic keratosis can become a squamous cell carcinoma (SCC).*
- *An SCC is less aggressive than a melanoma but still quite dangerous.*
- *Many people do not realize that they have SCC because it can look like an eczema or a wound healing issue.*
- *Any wound that does not heal normally has to be checked by a dermatologist.*

Malignant melanoma

Early detection of malignant melanoma - the skin tumor with the highest metastasis rate and a high mortality rate - is particularly important. The incidence is rising: this "black" skin cancer used to be considered rare, but since 2012 it has ranked fifth among the most common solid tumor entities in some G7 countries for both men and women. The rising

incidence is likely due to changes in vacation habits and increasing UV exposure. People in middle age are particularly frequently affected. Malignant melanoma de novo on healthy skin or from pigment-forming cells (melanocytes) of the skin or mucous membrane. The suspicion of such a skin cancer arises according to the ABCDE rule if:

A: asymmetry exists (asymmetrical appearance)
B: irregular borders (borders) are noticeable, i.e. the skin mark is not round or oval
C: color variations can be seen within the nevus
D: the diameter is more than 6 mm and/or the nevus is raised
E: Melanoma should also be considered if a nevus is new or changes noticeably in a patient older than 30 years.

If malignant melanoma is suspected, a full-body inspection of the skin, including adjacent and visible mucous membranes, is indicated, as in skin cancer screening. Palpation of the lymphatic flow areas and lymph node stations should also be performed. The skin lesion should be examined by dermatoscopy and other procedures as appropriate for clarification. In addition, according to the guideline, if a black skin cancer is clinically suspected, the lesion should be excised completely with a safe distance from the tumor margin (>5mm) to obtain a histologic diagnosis. In special situations, such as large, extensive tumors on the face, where complete diagnostic excision is difficult, a trial biopsy or partial excision may also be performed. This does not worsen the prognosis of the patients. Complete tumor excision is the only curative treatment option. According to the IAAT, the extent of the operation depends on the thickness of the tumor as determined by the fine tissue: If the tumor is more than one millimeter thick, the first lymph node in the lymph drainage of the affected skin region (sentinel lymph node) should also be removed. If complete removal of the tumor is not possible with the primary procedure, an attempt should be made to remove the residual tumor by means of a resection. If a full resection cannot be achieved with this procedure, other therapeutic modalities for tumor control can be considered. In recent years, cancer immunotherapy has become increasingly important, in addition to radiation therapy, targeted therapy, and chemotherapy.[5,6,15-19]

The patients needs to understand:

- It is also called “black” skin cancer and develops rapidly from healthy skin or a nevus.
- The rule in case of melanomas is: “time is life”. The tumor must be removed before it can grow through deeper skin layers. It has a quite good prognosis *only* in its early stages.

Basal cell carcinoma (BCC)

Basal cell carcinoma, which arises from the basal cell layer of the skin and generally does develop metastases only in rare exceptions. However, the tumor can grow into the surrounding tissue and destroy tissue and bone substance.

These lesions can vary greatly in appearance. They can be yellowish-reddish nodular tumors, red spots or deceptively as scar-like changes. In advanced tumors, there is usually ulceration, oozing, and possibly minor bleeding. According to the IAAT, basal cell carcinoma is the most common skin cancer worldwide. In Germany, about 195,000 people are newly diagnosed with basal cell carcinoma per year, men and women are affected about equally. Average age of onset is 60 years, although younger people are also increasingly affected. Colloquially, basal cell carcinoma together with squamous cell carcinoma of the skin is also called “white” skin cancer. Treatment depends on the location and size of the tumor, with the goal being complete removal of the lesion. In addition to surgery, superficial destructive procedures such as photodynamic therapy, radiotherapy, cryotherapy and laser treatments may also be used.[9,10,14,18]

What the patient has to understand:

- A basal cell carcinoma (BCC) is normally not a deadly disease (there are rare exceptions).
- BCCs are nevertheless dangerous because they can destroy skin tissue and even bones permanently. Especially in the face this can lead to very unpleasant consequences like the loss of a nose.
- The treatment of BCCs is easy when they are caught early. Since they grow rather slowly this is the case in most of the time. Sometimes it even doesn’t need a surgical removal but can be treated with (quite strong) local medication or a certain type of cryotherapy.

Conclusion

The risk of injury from cataplexy is considerable and usually underestimated. Prescribing non-pharmacological medical aids may not eliminate but reduce injuries. By involving the social network of the patient to be cared for, both stigmatization and misunderstandings can be counteracted, which has a positive effect on the patient's compliance.

Conflicts of interest

None.

Ethical standards and patient’s rights

This article is about scientific facts based on research literature. It is not reporting on a clinical trial, especially not a prospective one. Our research work is always conducted in accordance with the Declaration of Helsinki.

References

1. Diamandis, Carolina, Lazar, Marius, Bodrov, Dimitri V., Davis, Alexander, Makris, Alexandros, Papadopoulou, Efstathia, & Smith, Catherine. (2021) Dysplastic nevi: do they exist and what are they actually?. Zenodo Publishing. doi.org/10.5281/zenodo.4743255

2. Lazar, Marius, Davis, Alexander, & Diamandis, Carolina. (2021). Skin cancer prevention: which strategy is the most promising? Zenodo Publishing. doi.org/10.5281/zenodo.4740967

3. Seidl S, Schuster B, Rüth M, Biedermann T, Zink A. What Do Germans Want to Know About Skin Cancer? A Nationwide Google Search Analysis From 2013 to 2017. J Med Internet Res. 2018 May 2;20(5):e10327. doi: 10.2196/10327. PMID: 29698213; PMCID: PMC5956155.

4. Jackson BA. Nonmelanoma skin cancer in persons of color. Semin Cutan Med Surg. 2009 Jun;28(2):93-5. doi: 10.1016/j.sder.2009.04.010. PMID: 19608059.

5. Ferris LK. Skin cancer screening: it's a matter of time. Br J Dermatol. 2020 Sep;183(3):417-418. doi: 10.1111/bjd.18974. Epub 2020 Apr 1. PMID: 32237075.

6. Simões MCF, Sousa JJS, Pais AACC. Skin cancer and new treatment perspectives: a review. Cancer Lett. 2015 Feb 1;357(1):8-42. doi: 10.1016/j.canlet.2014.11.001. Epub 2014 Nov 11. PMID: 25444899.

7. Thompson LW. Skin cancer--early detection. Semin Surg Oncol. 1989;5(3):153-62. doi: 10.1002/ssu.2980050303. PMID: 2662332.

8. Gordon RM. Skin cancer: more than skin deep. Adv Skin Wound Care. 2009 Dec;22(12):574-80; quiz 581-2. doi: 10.1097/01.ASW.0000363470.25740.a2. PMID: 19935136.

9. Acartürk TO, Edington H. Nonmelanoma skin cancer. Clin Plast Surg. 2005 Apr;32(2):237-48. doi: 10.1016/j.cps.2004.11.009. PMID: 15814120.

10. Skidmore RA Jr, Flowers FP. Nonmelanoma skin cancer. Med Clin North Am. 1998 Nov;82(6):1309-23, vi. doi: 10.1016/s0025-7125(05)70417-x. PMID: 9889750.

11. Rohrer TE, Ratner D. Skin cancer. Semin Cutan Med Surg. 2011 Mar;30(1):1-2. doi: 10.1016/j.sder.2011.02.004. PMID: 21540014.

12. Behan JW, Sutton A, Wysong A. Management of Skin Cancer in the High-Risk Patient. Curr Treat Options Oncol. 2016 Dec;17(12):60. doi: 10.1007/s11864-016-0435-z. PMID: 27766546.

13. Brunssen A, Waldmann A, Eisemann N, Katalinic A. Impact of skin cancer screening and secondary prevention campaigns on skin cancer incidence and mortality: A systematic review. J Am Acad Dermatol. 2017 Jan;76(1):129-139.e10. doi: 10.1016/j.jaad.2016.07.045. Epub 2016 Oct 1. PMID: 27707591.

14. Brandt MG, Moore CC. Nonmelanoma Skin Cancer. Facial Plast Surg Clin North Am. 2019 Feb;27(1):1-13. doi: 10.1016/j.fsc.2018.08.001. PMID: 30420063.

15. Babino G, Lallas A, Longo C, Moscarella E, Alfano R, Argenziano G. Dermoscopy of melanoma and non-melanoma skin cancer. G Ital Dermatol Venereol. 2015 Oct;150(5):507-19. Epub 2015 Jul 16. PMID: 26184795.

16. Kornek T, Augustin M. Skin cancer prevention. J Dtsch Dermatol Ges. 2013 Apr;11(4):283-96; quiz 297-8. doi: 10.1111/ddg.12066. PMID: 23574893.

17. Gordon R. Skin cancer: an overview of epidemiology and risk factors. Semin Oncol Nurs. 2013 Aug;29(3):160-9. doi: 10.1016/j.soncn.2013.06.002. PMID: 23958214.

18. Linares MA, Zakaria A, Nizran P. Skin Cancer. Prim Care. 2015 Dec;42(4):645-59. doi: 10.1016/j.pop.2015.07.006. PMID: 26612377.

19. Alam M, Waldman A, Maher IA. Practice and Educational Gaps in Surgery for Skin Cancer. Dermatol Clin. 2016 Jul;34(3):335-9. doi: 10.1016/j.det.2016.02.012. PMID: 27363890.