

## Nonmelanoma Skin Cancer on the Rise

Nonmelanoma skin cancer (NMSC) represents a heterogeneous group of epithelial cancers of skin. The most common types are basal cell carcinoma (BCC) and squamous cell carcinoma (SCC). NMSC seems to be a particular problem in the fair-skinned population highlighting the importance of UV exposure in the multistep cancerization process. The numbers of NMSC are growing worldwide due to three major factors:

- Earlier detection
- More outdoor activities
- A world population that's growing older.

If the increase in NMSC is also a result of climate change and ozone depletion is a matter of debate. NMSC is also a challenge due to medical progress in organ transplant patients who need a lifetime follow-up for early recognition and treatment particularly for SCC. Among the dermatological patients, those who underwent PUVA treatment are on a higher risk for genital NMSC underlining the need of genital protection during treatment.

Only recently, the importance of the occupational environment for NMSC induction has reached a wider interest in preventive medicine. Two recent publications from my friend and colleague Andrea Bauer, University Department of Dermatology Dresden, analysed the problem of occupational NMSC. A meta-analysis of published data revealed an odds ratio of 1.77 for SCC in UV-exposed workers.<sup>[1]</sup> Outdoor work resulted in an odds ratio for BCC of 1.43.<sup>[2]</sup>

The German regulation bodies for occupational diseases have started to acknowledge occupational UV exposure as a health risk and provide financial compensation in the

case of work-related SCC. This raises another important question: How do we measure the UV exposure at work? There is no simple answer to this.

When it comes to treatment, Mohs surgery and radiotherapy are still the most effective for SCC and BCC. Despite all efforts in treatment, it is critical to define those patients who have a higher risk for metastatic spread and morbidity.<sup>[3,4]</sup>

Interesting new developments are seen in radiotherapy to create a more specifically targeted therapy like volumetric modulated arc radiotherapy. Its combination with targeted drugs, like cetuximab, is effective even for advanced disease as my group has shown first.<sup>[5]</sup>

In the case of advanced BCC, new hope arises from sonic hedgehog inhibitors investigated in trials. Although these drugs will not substitute the established ones, they offer new hope in surgically untreatable disease.

Hopefully, the rise of NMSC will also create a rise in opportunities to support their treatment.

### REFERENCES

1. Schmitt J, Seidler A, Diepgen TL, Bauer A. Occupational ultraviolet light exposure increases the risk for the development of cutaneous squamous cell carcinoma: A systematic review and meta-analysis. *Br J Dermatol* 2011;164:291-307.
2. Bauer A, Diepgen TL, Schmitt J. Is occupational solar ultraviolet irradiation a relevant risk factor for basal cell carcinoma? A systematic review and meta-analysis of the epidemiological literature. *Br J Dermatol* 2011;165:612-25.
3. Brantsch KD, Meisner C, Schönffisch B, Trilling B, Wehner-Caroli J, Röcken M, *et al.* Analysis of risk factors determining prognosis of cutaneous squamous-cell carcinoma: A prospective study. *Lancet Oncol* 2008;9:713-20.
4. Wollina U, Pabst F, Krönert C, Schorcht J, Haroske G, Klemm E, *et al.* High-risk basal cell carcinoma: An update. *Expert Rev Dermatol* 2010;5:357-68.
5. Wollina U, Schreiber A, Merla K, Haroske G. Combined cetuximab and volumetric modulated arc-radiotherapy in advanced recurrent squamous cell carcinoma of the scalp. *Dermatol Rep* 2011;3:e57.

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