EPIDEMIOLOGY

REGIONAL VARIATION IN PREVALENCE AND SCREENING OF SKIN CANCER IN GERMANY

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Introduction: Skin cancer is one of the most common type of cancer in Germany. Prevalence shows significant regional variations on county level. The same applies to the utilization in skin cancer screening. So far, nothing is known about the cause of these variations.

Objective: The present study aimed to investigate the regional associations of potential predictive factors with the frequency of skin cancer and skin cancer screening in Germany. Furthermore, the association between the regional prevalence and screening utilization was analyzed.

Materials and Methods: Nationwide, we obtained ambulatory claims data from 70.2 million statutory health insured persons coded by dermatologists and general physicians. The following diagnoses from the years 2009-2015 were considered for the analyses: Malignant Melanoma (MM, ICD-10 C43), Non-Melanocytic Skin Cancer (NMSC, ICD-10 C44), and skin cancer screening utilization. In addition, we adjusted for sociodemographic population data and solar irradiation data to analyze skin cancer prevalence. Descriptive as well as multivariate and spatial statistical analyses were conducted on county level.

Results: First results show marked regional variations in skin cancer prevalence and screening utilization. Multivariate analyses show statistically significant correlations between income, education and MM/NMSC prevalence with increasing MM and NMSC prevalence the higher the income and education is. Taking into account the UV radiation, the results show a positive association for NMSC where higher UV radiation intensity resulted in higher NMSC prevalence. The utilization of skin cancer screening was positively associated with socioeconomic variables (e.g. income). The association between the screening utilization and skin cancer prevalence is currently still being analyzed.

Conclusions: Skin cancer prevalence (MM/NMSC) and screening utilization in Germany shows spatio-temporal dynamics with significant impact of sociodemographic factors. The study illustrates important results to strategies to reduce regional disparities and to optimize intervention campaigns.