

Detailed site distribution of melanoma and sunlight exposure: aetiological patterns from a Swiss series.

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BACKGROUND: The relation between detailed cutaneous distribution of melanoma and indicators of sun exposure patterns has scantily been explored in moderately sun-sensitive populations.

PATIENTS AND METHODS: The precise site of 1658 primary malignant melanoma, registered from 1995 to 2002, in Switzerland were retrieved and clinically validated. Relative melanoma density (RMD) was computed by the ratio of observed to expected number of melanoma allowing for body site surface areas, and further adjusted for site-specific melanocyte density.

RESULTS: Sites of highest risks were the face, shoulder and upper arm for both sexes, the back for men, and leg for women. Major features of this series were: (i) an unexpectedly high RMD for the face in women (5.6 versus 3.7 in men), (ii) the absence of a male predominance for melanoma on the ears and (iii) for the upper limbs, a steady gradient of increasing melanoma density with increasing proximity to the trunk, regardless of sex. Age and sex patterns of RMD paralleled general indicators of sun exposure and behaviour, except for the hand (RMD = 0.2).

CONCLUSION: RMD increased with (cumulative) site sun exposure, but a few notable exceptions support the impact of intermittent exposure in melanoma risk.