ABSTRACT

POPULATION-BASED REGISTRATION OF PHENOTYPIC, ANATOMIC AND FAMILIAL DATA FOR MELANOMA: RESULTS FROM A SWISS MULTICENTRIC STUDY

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CONTEXT AND OBJECTIVES:

A multicentric study was set up to assess the feasibility for Swiss cancer registries of actively retrieving 3 additional variables of epidemiological and aetiological relevance for melanoma, and of potential use for the evaluation of prevention campaigns.

MATERIAL AND METHODS:

The skin type, family history of melanoma and precise anatomical site were retrieved for melanoma cases registered in 5 Swiss cantons (Neuchâtel, St-Gall and Appenzell, Vaud and Wallis) over 3 to 6 consecutive years (1995-2002). Data were obtained via a short questionnaire administered by the physicians – mostly dermatologists – who originally excised the lesions. As the detailed body site was routinely collected in Ticino, data from this Cancer Registry were included in the body site analysis. Relative melanoma density (RMD) was computed by the ratio of observed to expected numbers of melanomas allowing for body site surface areas, and further adjusted for site-specific melanocyte density.

RESULTS:

Of the 1,645 questionnaires sent, 1,420 (86.3%) were returned. The detailed cutaneous site and skin type were reliably obtained for 84.7% and 78.7% of questionnaires, and family history was known in 76% of instances. Prevalence of sun-sensitive subjects and patients with melanoma affected first-degree relatives, two target groups for early detection and surveillance campaigns, were 54.1% and 3.4%, respectively.

After translation into the 4th digit of the International Classification of Diseases for Oncology, the anatomical site codes from printed (original information) and pictorial support (body chart from the questionnaire) concurred for 94.6% of lesions. Discrepancies occurred mostly for lesions on the upper, outer part of the shoulder for which the clinician's textual description was "shoulder blade". This differential misclassification suggests an under-estimation by about 10% of melanomas of the upper limbs and an over-estimation of 5% for truncal melanomas.

Sites of highest melanoma risk were the face, the shoulder and the upper arm for both sexes, the back for men and the leg for women. Three major features of this series were: (1) an unexpectedly high RMD for the face in women (6.2 vs 4.2 in men), (2) the absence of a male predominance for melanomas on the ears, and (3) for the upper limbs, a steady gradient of increasing melanoma density with increasing proximity to the trunk, regardless of sex.

DISCUSSION AND CONCLUSION:

The feasibility of retrieving the skin type, the precise anatomical location and family history of melanoma in a reliable manner was demonstrated thanks to the collaboration of Swiss dermatologists. Use of a schematic body drawing improves the quality of the anatomical site data and facilitate the reporting task of doctors.

Age and sex patterns of RMD paralleled general indicators of sun exposure and behaviour, except for the hand (RMD=0.2). These Swiss results support some site or sun exposure specificity in the aetiology of melanoma.