

In this issue

Insights into melanoma epidemiology

Two epidemiological studies on risk factors for melanoma are published in this issue of *EJC*.

Gandini and colleagues have conducted a systematic meta-analysis of studies linking melanoma to its various risk factors. The study indicated a highly significant association between melanoma and (1) family history; (2) appearance of high density freckles; (3) those with fair eyes and skin who are likely to burn and not tan; and (4) people with “Red” hair colour compared to those with dark hair. This study concludes the trilogy of meta-analytical papers that has been previously published in the *EJC* focusing on the incidence and risk factors associated with melanoma.

The other independent study on melanoma incidence that is appearing in this issue is from Bataille and colleagues. They present a large European case-control study investigating the association between sunbed use and cutaneous melanoma in an adult population aged between 18 and 49 years. The authors found that the overall adjusted odds ratio associated with ever having used a sunbed was 0.90 (95% CI: 0.71–1.14). Dose and lag-time between first exposure to sunbeds and time of study were not associated with melanoma risk; neither was sunbathing and sunburns.

In the absence of a valid animal model for human melanoma, epidemiological studies are required to provide evidence of an association between sunbed use and melanoma. However, establishing this link has been controversial. Conflicting results from various studies has meant that the topic of melanoma risk from sunbed use is still hotly debated. In an accompanying article by de Vries, the observations from the Bataille paper – showing no association between sunbed use and melanoma risk – are further analysed. They speculate that cases in the Bataille study may have underreported their sun and sunbed exposure. Also high percentages of sunbed use among controls indicated possible recruitment bias: eligible controls who were sunbed users were probably more likely to accept the invitation to participate in a study than non-users, possibly due to a feeling of ‘guilt’ or ‘worry’ about their habits. de Vries and colleagues suggest that selective participation may have strongly influenced the melanoma risk estimates of sunbed use found in the Bataille study.

The complexities giving rise to inconsistent case-control epidemiological studies regarding melanoma risk factors are recapitulated and discussed in this issue’s editorial by Gallagher. He considers the role of the participant in accurately recalling exposure to risk factors, the effect of public education programmes and the methodological difficulties in conducting case-control studies.