

Melanoma epidemic: a midsummer night's dream?

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Levell NJ, Beattie CC, Shuster S, Greenberg DC.

Dermatology Department, Norfolk and Norwich University Hospital, Norwich NR4 7UY, U.K.

Summary Background The reported incidence of melanoma has greatly increased and this has been

attributed to ultraviolet exposure. **Objectives** We considered the possibility that the increase was an

artefact caused by diagnostic drift. **Methods** We tested this by analysing the histological diagnosis,

mortality and incidence of all lesions reported as melanomas in East Anglia between 1991 and 2004.

Results There were 3971 melanomas in all, and their annual incidence increased from 9.39 to 13.91

cases per 100 000 per year during the period studied. This increased incidence was almost entirely due

to minimal, stage 1 disease. There was no change in the combined incidence of the other stages of the

disease, and the overall mortality only increased from 2.16 to 2.54 cases per 100 000 per year.

Conclusions We therefore conclude that the large increase in reported incidence is likely to be due to

diagnostic drift which classifies benign lesions as stage 1 melanoma. This conclusion could be confirmed

by direct histological comparison of contemporary and past histological samples. The distribution of the

lesions reported did not correspond to the sites of lesions caused by solar exposure. These findings

should lead to a reconsideration of the treatment of 'early' lesions, a search for better diagnostic

methods to distinguish them from truly malignant melanomas, re-evaluation of the role of ultraviolet

radiation and recommendations for protection from it, as well as the need for a new direction in the

search for the cause of melanoma.