

SHORT REPORTS

Sunbed lentigines

Despite the recent publicity of the Cancer Research Campaign against melanoma and the cautionary message of Hawk¹ the popularity of sunbeds continues to rise. A vast array of devices is on sale in almost every high street, with units in almost all larger "health clubs." They are designed to emit ultraviolet light A (315-400 nm), which usually tans without burning. Many units, however, are contaminated with small but perceptible amounts of ultraviolet B (280-315 nm), whose long term cutaneous effects such as premature aging and skin cancer have been considered more deleterious when compared with ultraviolet A, though evidence is steadily accumulating strongly incriminating ultraviolet A as well.² Not only may they seriously exacerbate photodermatitis but they have been shown to be ineffective in producing a satisfactory tan and protecting against further sunburn in most patients in recent studies.^{3,4}

We describe a 35 year old woman who suddenly developed unusual lentigines on her legs during a period of intense exposure on a sunbed.

Case report

A 35 year old secretary with skin type 3 (sometimes burns, always tans) presented to our early diagnosis melanoma clinic with an unusual pattern of lentigines on her legs. They had appeared abruptly two years previously coincident with a fivefold increase in her exposure on a sunbed to a total of 50 half hour sessions over 10 weeks as a "special offer" at her local solarium. The lesions (figure) were unusual in that they were large and irregularly pigmented with irregular borders. They were densely scattered on the fronts of the shins with



Densely scattered, irregularly shaped and pigmented lesions on fronts of shins after using sunbed.

almost complete sparing of the backs despite equal exposure times. A biopsy sample of a lesion contained increased numbers of melanocytes, some of which showed atypical features such as angular hyperchromatic nuclei and upward migration.

The patient was advised to observe strict avoidance of ultraviolet light and six months later a further biopsy was performed. This showed persistence of the melanocytic hyperplasia and atypia, and electron microscopy showed sparse and abnormally clumped melanosomes in the melanocytes and keratinocytes heavily laden with melanosomes, the disparity in melanosomes suggesting that melanosome production had decreased during the six months of avoidance.

During 18 months of strict avoidance of ultraviolet light the lesions showed no seasonal variation in number or colour and continued to enlarge and coalesce.

Comment

These unusual lesions are clearly distinguishable from simple freckles (ephelides) by their lack of seasonal variation, irregular pigmentation and border, and increased number of melanocytes, some of which may be atypical. They are perhaps best described as "sunbed lentigines" and share some of the clinical and histological features of lentigines seen in some patients receiving long term photochemotherapy (psoralen plus ultraviolet light A). Their sudden appearance during a period of intense use of a sunbed suggests that these lentigines were related to the patient's excessive exposure to ultraviolet A. We do not know how common the problem is, but a case has been reported of a woman who developed similar lesions during use of a sunbed at home, though ultrastructural studies were not performed.⁵ The biological behaviour of the lesions is unknown, and development from melanocytic atypia to malignant melanoma, though unlikely, is a possibility.

With the small but growing number of cautionary reports it seems foolish to irradiate poorly protected white skin in the interests of short term fashion—far better to remain pale and interesting.

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- 2 Sterenberg HCJM. Tumorigenesis by longwave UVA radiation. In: Investigations on the action spectrum of tumorigenesis by ultraviolet light radiation. Utrecht, The Netherlands: University of Utrecht, 1987:79-92. (PhD thesis.)
- 3 Devgum MS, Johnson BE, Paterson CR. Tanning protection against sunburn and vitamin D formation with a UV-A "sun-bed." *Br J Dermatol* 1982;107:275-84.
- 4 Rivers JK, Norris PG, Murphy GM, et al. Effects of UVA sunbeds in human subjects. *Br J Dermatol* 1986;116(suppl 30):426.
- 5 Jones SK, Moseley H, Mackie RM. UVA-induced melanocytic lesions. *Br J Dermatol* 1987;117:111-5.

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Departments of Dermatology and Morbid Anatomy, King's College Hospital, London SE5 9RS

HYWEL C WILLIAMS, BSC, MRCP, registrar in dermatology
 JON SALISBURY, BSC, MRCPATH, senior lecturer in morbid anatomy
 JUDITH BRETT, MB, BS, Cancer Research Campaign fellow
 ANTHONY DU VIVIER, MD, FRCP, consultant dermatologist

Correspondence to: Dr Williams.

Eye injuries caused by elasticated straps

The effects of blunt trauma to the eye are well recognised.¹ Most ophthalmologists are familiar with injury caused by elasticated straps, but to our knowledge only one series has been reported.²

Case reports

Six patients presented to this hospital with serious eye injuries caused by the accidental release of tightened elasticated straps; the table gives details. Four patients had permanent visual impairment.

Comment

Elasticated straps with metal or plastic hooks are often used to secure luggage, particularly on car roof racks, which are at eye level. The hook that is attached first may slip while the strap is being tightened, and severe ocular injury may result as the hook and strap recoil. This occurred in three of our cases. One patient (case 2) sustained a corneal perforation from fragments of his spectacles, but the lens may have protected him from the full impact of the hook.

Each patient needed to be admitted to hospital at least once, and four patients had surgery. The average time spent in hospital was six days (range three to 14). One patient (case 5) was admitted five times and had four operations.

We suggest that the design of the hooks used to fasten elasticated straps should be changed. A spring loaded metal gate clip like those used on dog