

DOES ACNE VULGARIS IMPROVE IN SUMMERTIME?

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ABSTRACT

The improvement of acne in summertime or the aggravation in winter is a traditional dermatological opinion. Ultraviolet rays are thought to be beneficial to acne. In the existing literature there is no proof of this. The purpose of this study was to find out whether or not acne generally aggravates in winter. We asked 139 patients if their acne aggravates in winter or in summertime. About one third of the patients reported an aggravation of their acne in winter, but approximately also one third of the patients complained about an aggravation in summer. Another third did not notice any change. It may be concluded that sun-bathing may be beneficial to the emotions and may produce euphoric effects, but we think now that there is no reason for the use of ultraviolet radiation with all its negative effects on the skin in the treatment of acne.

KEY WORDS

acne vulgaris, seasonal aggravation, ultraviolet radiation

INTRODUCTION

Acne vulgaris generally improves in summertime. There is widespread consensus about this opinion among dermatologists. However, there is no proof of this. The available literature concerning this subject is poor.

According to one report some 60 per cent of patients noticed an improvement, 20 per cent noticed no difference, and in the other 20 per cent their acne was aggravated during the summer months (1).

To get more information about this we interviewed patients to find out whether their acne aggravated, in winter or in summertime.

SUBJECTS AND METHODS

139 patients (56 men and 83 women) with acne vulgaris were interviewed by a dermatologist who also confirmed the diagnosis of acne vulgaris by physical examination. The mean age of the patients was 25 years (range 13-44 years). 46 patients suffered from acne comedonica, 74 patients from acne papulopustulosa, 15 patients from acne conglobata and 2 patients from acne inversa.

RESULTS

About one third of the patients reported an

Dedicated to professor Dr.med. Dr.Phil. S. Borelli on the occasion of his 70th birthday

aggravation of their acne in winter (46 of n=139), but approximately also one third of the patients complained about an aggravation in summer (44 of n=139). One third noticed no change (49 of n=139). In particular women did not observe any seasonal dependency of their acne (34 of n=83)(Fig. 1).

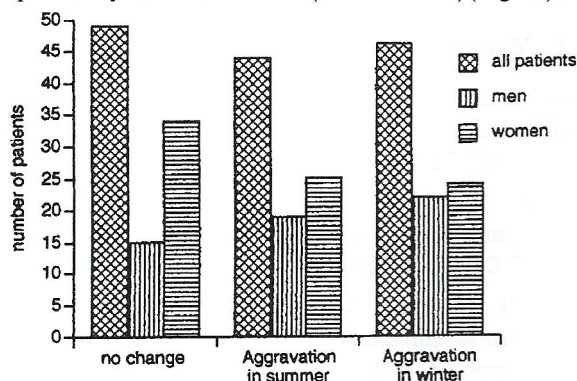


Figure 1. Changes in the severity of acne in summer/winter

In some patients aggravation in summertime was subjectively associated with more sweat or with sun-bathing.

DISCUSSION

The improvement of acne in summertime or the aggravation in winter is a traditional dermatological opinion. Ultraviolet rays are thought to be beneficial to acne. Some authors think that sun-bathing promotes the resorption of inflammatory lesions by increased blood flow (4). UVA-radiation has been suggested to reduce the sebum excretion rate (6). In vitro, ultraviolet radiation is known to have several effects

on bacteria. Especially UVA-radiation, which penetrates deeper in the epidermis, may therefore have an effect on the germs in the comedones. Unequivocally helpful is the camouflaging effect produced by the pigmentation.

In our study nearly the same number of patients reported aggravation of their acne in winter, and no seasonal difference in summertime. These findings need to be discussed. In some studies UVB-radiation was found to enhance the comedogenicity of squalene (7). Ultraviolet radiation does not loosen or expel experimentally induced comedones (5). An additional possible explanation for an aggravation of acne in summer may also be the widespread use of sunscreens. The effects of these frequently comedogenic substances, mostly ointments, may be potentiated by the action of ultraviolet rays (3). Another explanation for this is enhanced formation of the Stratum corneum by light, the "UV-callus" (2). This fact intensifies the occlusion of the follicular infundibuli, subsequently forming new comedones.

The aggravation of acne, reported by our patients, probably due to an aggravation of inflammation rather than to the formation of new comedones. Whatever enhances the inflammation in acne is not well understood. Therefore further studies on this subject are important.

CONCLUSION

We can conclude that sun-bathing may be beneficial to the emotions and may produce euphoric effects, but we think now that there is no justification for the use of ultraviolet radiation considering all its negative side effects on the skin in the treatment of acne.

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