Measurement of Actinic Erythema in Healthy Subjects and in Subjects with Polymorphous Light Eruption Using a Tristimulus Colorimeter

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Key Words

Actinic erythema

Polymorphous light eruption

Tristimulus colorimeter

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Garigue et al. [1] recently administered routine minimal erythema doses to 72 patients. They then used a tristimulus colorimeter to measure the erythema in 3 different modes: L^* , a^* and b^* . Mode L^* corresponds to the sample luminescence envisioned as a point along a black-white axis, whereas a^* and b^* are chromaticity coordinates for the red-green and yellow-blue axes, respectively. Not surprisingly, measures with mode L^* were able to differentiate skin color categorized as light, intermediate or dark. Surprisingly, however, noninvasive measures with mode a^* distinguished between healthy subjects and those with a photodermatosis, namely either polymorphous light eruption or benign summer light eruption. While the minimal erythema doses appeared normal clinically, they were abnormal compared to those of nonphotosensitive volunteers on chromometric measurements. These observations may indeed reflect interesting pathophysiological mechanisms.

It is important to remember that so far the authors have not uncovered a way to distinguish between a photosensitive and nonphotosensitive individual based on a single erythema reading. To me, these results merely say that if one looks at a group of photosensitive patients, their values in the a^* mode tend to differ from those of nonsensitive individuals. They have yet to determine the threshold value for disease. Would the authors care to venture a number value which tends to discriminate between sensitive and nonsensitive individuals? Furthermore, it remains to be seen if these results can be duplicated in other series and whether chromometric differences in actinic erythema will be uncovered in patients suffering from additional types of photosensitivity.

Finally, the fact that there was no difference between polymorphous and benign summer light eruptions in these measurements would seem to lend further support to the belief that the latter is merely a minor clinical variant of the former. I wondered how the authors felt about this interpretation.

Reference 1 Garigue J, Marguery MC, Malmay MF, El Sayed F, Bazex J: Measurement of actinic erythema in healthy subjects and in subjects with polymorphous light eruption using a tristimulus colorimeter. *Dermatology* 1995; 190: 31-34.

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Reply

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Key Words

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In response to the letter of Dr. C.R. Taylor, the average threshold values (with standard deviations) for parameter a^* , divided according to the state of health, skin color and the measurement site (nonirradiated site vs. clinical minimal erythema dose site), can be found in table 2 of our study [1].

In a second phase, this same study was conducted with a series of patients suffering from chronic actinic dermatitis in remission ($n = 12$) in comparison with healthy subjects ($n = 5$) [2].

The statistical analysis of this second study permitted us to significantly confirm the previous results concerning parameter a^* MED.

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Garigue J, Marguery MC, Malmay MR, El Sayed F, Bazex J: Measurement of actinic erythema in healthy subjects and in subjects with polymorphous light eruption using a tristimulus colorimeter. *Dermatology* 1995; 190: 31-34.

Marguery MC, Garigue J, Rakotondrazafy J, Malmay MF, Bazex J: Measurement of actinic erythema in patients with chronic actinic dermatitis using a tristimulus colorimeter. *J Invest Dermatol* 1995; 104:689.

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N E R V A L

DIARY

The voyageur enthousiaste observe.

Salzburg, at the Festival, July 30, 1996

Caravans of Dreams

Nightly the caravans of dreams

How they draw with their travelling sandals

The tracks of Destiny... [1]

On birthday occasions, the Jews convey to each other the wish 'and meah w-esrim',
nni»ai πnis t»

'may you live to 120 (years)', alluding to the legendary life span of Moses (Deuteronomy 34:7).

The Chinese settle for half of this number, 60 years, this being the common denominator of the Decimal (the Ten Heavenly Stems), 58, 'tiān gān', and the Duodecimal (the Twelve Earthly Branches) Cycles, 'di zhi', 33E, spelled jiāzǐ, 33.

I have just passed the latter mark, reason enough for reflexions.

Helmut Hintner, professor and chairman of the Salzburg department of dermatology invited me to preside a seminar for his staff and to attend a chamber concert at the Salzburg Festival. A 'first' for me this festival, unbelievable as it may seem for an erstwhile musician, descendant of a

family of musicians on my maternal side. Benjamin Schmidt, from Vienna with a Stradivari of 1707, and Lydia Smirnova, from Moscow, played Schubert, Stravinsky and Schumann. A fabulous performance.

I feel that I have lived one full century already and thousands of memories jam my mind.

Terrible moments and exhilarating ones, success and failure, long hours and ever shorter years, the staccato of an emotional temper.

Gottfried Benn, dermatologist and poet, first banned by the Nazis, thereafter by the Allies, was allotted 70 years; my beloved and revered teacher Ernst Jirgal, another lyric, epigone of Rainer Maria Rilke and Georg Trakl, only made it to 51. Both died exactly 40 years ago (July 7 and August 18). Lines of poetry as well as chamber music, with a lyric of its own, evoke dreams of youth, maturity and age. Benn wrote: 'Only the lyric, the really great lyric knows that the word is real. Lyric poetry is Olympic or derived from Lethe' [2].

Dermatology sharpens the eye, turns the mind and the senses to the integument, to Homer's ὀφθαλμός, to τὸ δέπμα of the physicians, with all its beauty and ugliness, whiffs of fragrance and warmth of the YOU. Second to none of the organs in terms of a human, interpersonal dimension and of perception of the self. Never would I trade skin for another field of medicine, better to start it all over again.

Words of a dermatologie chauvinist indeed!

Jirgal E: Karawanen von Träumen (Caravans of Dreams), poem; in Nomadenabend. Munich, Drei Ulmen, 1989.

Benn G: Gesammelte Werke, ed 8. Stuttgart, Klett-Cotta, 1994, vol 4, p263.

à bientôt,

K.H., Vienna

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