

## Use of Alternative Medicine by Patients with Atopic Dermatitis and Psoriasis

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**In a questionnaire study at a university hospital in Norway, 227 of 444 patients with atopic dermatitis (51.1%) and 215 of 506 patients with psoriasis (42.5%) reported previous or current use of one or more forms of alternative medicine. Homoeopathy, health food preparations and herbal remedies were used most. Use was related to disease duration, disease severity and – among the atopic dermatitis patients – the inefficacy of therapy prescribed by physicians, as judged by the patients. The use of alternative medicine is commonplace and should be of concern to dermatologists. Key words: Complementary medicine; Homoeopathy; Skin disease; Questionnaire survey.**

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Alternative medicine – sometimes called complementary or supplementary medicine – may be defined as forms of therapy or examination that have no scientific basis and where no effect or diagnostic reliability have been demonstrated by scientific methods (1). Its use in dermatological conditions is described by Cotterill (2). Alternative medicine is attracting increasing attention in the mass media and among patients in many countries. It may complicate patient-doctor communication and reduce patient compliance regarding treatment recommended by doctors, leading to possible serious clinical complications (3), but the possibility of its therapeutic benefits cannot be ruled out. The use of alternative medicine should therefore be of concern to all physicians, including dermatologists.

Studies on the use of alternative medicine have been carried out among patients with rheumatological (4, 5) and other diseases (6, 7), in general population surveys (8, 9) and among alternative therapists and their patients (10–14). Few reports concern skin disease (3, 9, 15).

We have carried out a questionnaire study on the

use of alternative medicine among patients with atopic dermatitis (AD) and psoriasis (Ps) in order to answer the following questions: How widespread is the use of alternative medicine? Is its use related to age, sex, disease duration, disease severity, or patients' evaluation of treatment provided by the medical profession? What forms of alternative medicine are used?

### *Material and methods*

A self-administered questionnaire was constructed on the basis of a similar study among patients with rheumatological disease (4) and pretested among persons with and without skin disease. The questionnaire included 16 questions with closed answers. Disease duration is based on the year when the patients experienced the first symptoms of the skin disease, without consideration of spells of remission. The number of hospitalizations due to skin disease, as well as associated disease, are assumed to be related to disease severity. Data from patients' files were not included, and no clinical examinations were carried out.

Nine forms of alternative medicine were listed (Table I). The patients were asked if they had tried each of these, with three options: »have not tried«, »have tried before« and »using now«. The last two answers will be jointly referred to as »have tried« or »have used«. It was emphasized that treatment for conditions other than their skin disease should not be included. Parents were asked to fill in the questionnaire for children. Confidentiality was emphasized.

The questionnaire was sent to all ( $n = 1,085$ ) patients registered during 1987 as having AD ( $n = 499$ ) or Ps (including pustulosis palmo-plantaris) ( $n = 586$ ) at the dermatological out-patient department of Rikshospitalet, Oslo, Norway. Non-respondents were sent one or two reminders. Of 966 returned questionnaires, 950 were accepted for analysis, giving a response rate of 87.6%, which was approximately the same in both patient groups. The age distributions of the two groups differed significantly, as shown in Table II. Among the respondents, 63.1% of the AD patients and 50.2% of the Ps patients were females. The age and sex distributions of the 135 non-respondents did not differ significantly from those of the respondents.

Statistical Analysis System (SAS) software (16) was used for statistical analysis. For multivariate analysis, the Grizzle-Starmer-Koch (GSK) linear model approach was applied (17). For bivariate analysis,  $\chi^2$ -test and Fisher's exact test were applied (18). A significance level of 0.05% was used in all tests. All  $p$ -values are two-sided.

Table I. Numbers and proportions of patients with atopic dermatitis (AD) and psoriasis (Ps) reporting use of various forms of alternative medicine

|                          | AD      |      | Ps      |      |
|--------------------------|---------|------|---------|------|
|                          | n       | %    | n       | %    |
| Homoeopathy              | 147/432 | 34.0 | 88/491  | 17.9 |
| Herbal remedies          | 79/425  | 18.6 | 92/489  | 18.8 |
| Health food preparations | 77/419  | 18.4 | 120/490 | 24.5 |
| Diet change              | 77/424  | 18.2 | 57/491  | 11.6 |
| Foot zone therapy        | 31/417  | 7.4  | 33/493  | 6.7  |
| Acupuncture              | 50/420  | 11.9 | 37/494  | 7.5  |
| Magnet therapy           | 9/417   | 2.2  | 13/490  | 2.7  |
| Iris diagnosis           | 26/417  | 6.2  | 12/486  | 2.5  |
| Hair mineral analysis    | 20/417  | 4.8  | 11/489  | 2.2  |
| Other forms <sup>1</sup> | 30/417  | 7.2  | 37/448  | 8.3  |

<sup>1</sup>includes chiropractice, anthroposophical medicine, healing, health food preparations other than those reported under the question concerning health food preparations, and various.

## RESULTS

Among 444 patients with AD, 227 (51.1%) reported previous or current use of one or more forms of alternative medicine. This was significantly higher than among 506 patients with Ps where 215 (42.5%) reported such use, even when correcting for the different age and sex distributions of the two patient groups ( $p < 0.01$ ).

The frequencies with which the nine forms of alternative medicine had been tried are shown in Table I. Homoeopathy was the most frequently used form of alternative medicine among patients with AD, whereas use of health food preparations was most often reported by patients with Ps.

The proportion of patients who had tried alternative medicine varies in accordance with several factors.

### Disease duration

Patients with disease duration  $>10$  years had tried alternative medicine more often than patients with disease duration  $\leq 5$  years (68.0% vs. 32.4% in the AD group and 47.8% vs. 31.4% in the Ps group;  $p < 0.001$ ).

### Disease severity

Hospitalized patients had tried alternative medicine more often than patients never hospitalized because of their skin disease (72.6% vs. 44.2% in the AD group and 52.8% vs. 35.4% in the Ps group;  $p < 0.001$ ). A larger proportion of patients with both AD and allergic rhinitis or asthma had tried alternative medicine for their skin disease than had those with only AD ( $p < 0.001$ ). Correspondingly, a larger proportion of patients with psoriasis and psoriatic arthritis had tried alternative medicine for their skin disease ( $p < 0.001$ ).

Table II. Numbers and proportions of patients with atopic dermatitis (AD) and psoriasis (Ps) in different age groups reporting use of alternative medicine

|             | AD      |      | Ps     |                   |
|-------------|---------|------|--------|-------------------|
|             | n       | %    | n      | %                 |
| 1-15 years  | 60/137  | 43.8 | 12/ 29 | 41.4              |
| 16-30 years | 110/213 | 51.6 | 40/ 94 | 42.6              |
| 31-45 years | 51/ 82  | 62.2 | 71/134 | 53.0 <sup>1</sup> |
| 46-60 years | 5/ 9    | 55.6 | 49/118 | 41.5              |
| 61- years   | 1/ 3    | 33.3 | 43/131 | 32.8 <sup>1</sup> |

<sup>1</sup>  $p = 0.001$

Table III. Numbers and proportions of patients with atopic dermatitis (AD) and psoriasis (Ps) who have tried alternative medicine grouped in accordance with their evaluation of physician-provided treatments

|                       | AD       |                   | Ps       |                   |
|-----------------------|----------|-------------------|----------|-------------------|
|                       | <i>n</i> | %                 | <i>n</i> | %                 |
| Very good             | 21/ 49   | 42.9              | 40/102   | 39.2              |
| Good                  | 54/120   | 45.0              | 64/153   | 41.8              |
| Some improvement      | 96/181   | 53.0              | 66/148   | 44.6              |
| No change             | 44/ 73   | 60.3              | 29/ 67   | 43.4              |
| Aggravation           | 9/ 13    | 69.2              | 11/ 19   | 57.9              |
| Very good/good        | 75/169   | 44.4 <sup>1</sup> | 104/255  | 40.8 <sup>2</sup> |
| No change/aggravation | 53/ 86   | 61.6 <sup>1</sup> | 40/ 86   | 46.5 <sup>2</sup> |
| No data               | 3/ 8     |                   | 5/ 17    |                   |

<sup>1</sup>*p* < 0.01<sup>2</sup>n.s.

#### Evaluation of physician/hospital therapy

Patients reporting "no change" or "aggravation" as a result of physician/hospital treatment had tried alternative medicine more often than those reporting "very good" or "good" results of physician/hospital treatment (Table III). However, the difference is significant only in the AD group (*p* < 0.01).

#### Age and sex

The largest proportion of patients having tried alternative medicine is found in the age group 31–45 years (Table II). There were no significant differences between males and females.

## DISCUSSION

The Department of Dermatology of Rikshospitalet serves seven south-eastern counties of Norway (excluding Oslo) with a population of about 1.4 million. Patients are principally referred from general practitioners or other medical specialists. Although many of these patients may have moderate or only mild symptoms, the proportion having severe AD or Ps is presumably higher than in general practice, non-university dermatological practice or general population surveys (9).

Self-administered questionnaires with closed answers is a well established method in the social sciences (18) and in medicine (19). The assumption of reliability of the questionnaire is based partly upon the use of a similar questionnaire in a study among rheumatological patients where a supplementary

qualitative study was performed (4). Moreover, the questionnaire – including the five-point scale for evaluation of physician-provided treatment – was constructed after a pilot study. The high response rate probably reflects a great interest in alternative medicine among the survey population. The number of non-respondents was low and probably does not influence the results.

Regardless of their dermatological diagnosis, 46.5% of the patients had tried alternative medicine. This number is comparable to other studies (4–8, 15) and confirms that many patients with chronic disease try alternative medicine.

Homoeopathy was the most frequently used form of alternative medicine among patients with AD, and is also used by many patients with Ps and by patients in other studies (3–7, 15). This is possibly a reflection of an increasing number of homoeopathic practitioners in recent years. Herbal remedies, used by many patients, are probably not distinguished from homoeopathic treatment by some (4). Use of health food preparations was most frequent among Ps patients. Change of diet was reported by many, but the nature and extent of these changes is unknown.

The results indicate that patients with AD are more liable to try alternative medicine than are patients with Ps. A possible explanation for this could be that AD patients are less satisfied with the effects of physician-provided treatment than are Ps patients. Fewer AD patients than Ps patients rate the results of physician/hospital treatment as "very good" or "good". Moreover, patients' evaluation of

physician/hospital treatment is a statistically significant decisive factor for trying alternative medicine only among those with AD (Table III).

The results indicate that there is a relationship between disease duration as well as disease severity, and use of alternative medicine. This implies that the absence of satisfactory treatment for AD and Ps is an important reason for most patients' trying alternative medicine.

Severe AD and Ps are disabling and uncomfortable diseases influencing the psychosocial life of the patients. Dermatologists should be aware of the fact that many AD and Ps patients try alternative treatments, and understand those who do so. To practitioners of alternative medicine, however, we should continue to ask for documentation of the possible effects of alternative medicine or other rationale for its use.

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