

was calibrated to one of the authors of the present paper (J. J. P.).

For the investigators the magnitude of the OLP incidence rate was quite surprising, especially when compared with the incidence rate for leukoplakia in the same population sample. On the basis of a 7-year follow-up study, Mehta et al. (1976) (6) found an age-adjusted incidence rate per 1 000 person-years of 3.3 for males and 1.8 for females. Thus, the incidence rate is higher for oral lichen planus than for leukoplakia in females in a South Indian population. Undoubtedly, OLP is more prevalent than hitherto believed.

In the present study OLP shows an evident association with tobacco habits which appears to be greater with tobacco chewing habits than with the smoking habit. The number of female smokers is too few to make any comparison, but among males the age-adjusted relative risks are 6.2 and 2.2 respectively for the two habit groups. The effect of two habits together, however, seems to be multiplicative and not additive, as is seen from the age-adjusted relative risk in the mixed habit group (13.7). The relative risks are age-adjusted because, as seen in Table II, the incidence of OLP varies considerably in different age groups and, as reported earlier (4), tobacco habits are also age-dependent.

Further studies on oral lichen planus, including incidence rates and correlation with tobacco habits, are desirable for different population groups.

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Dermatitis Plantaris Sicca: A Retrospective Study of Children with Recurrent Dermatitis of the Feet

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Abstract. 19 patients with recurrent dermatitis of the feet were re-examined in order to review the atopic predisposition, and the duration of the disease. 14 patients (74 %) had a history of atopy, vis-à-vis 31.5 % in the control group. In 8 patients (42 %) the dermatitis persisted beyond puberty, though in a clinically considerably milder condition.

Key words: Dermatitis plantaris sicca; Recurrent dermatitis of the feet; Atopy

Children with recurrent dermatitis of the feet are often referred to a dermatologist with a suspicion of dermatophytosis—which indeed is a rather unusual condition in childhood, or with a suspicion of allergy. The etiology of the recurrent, rather frequent, uncomfortable, dry, scaly, fissured, bilateral dermatitis (Fig. 1) is neither dermatophytotic nor due to allergy, but may be a result of both congenital (atopy?) (2, 5), and physical (perspiration?, friction?) (1, 5) factors.

This present study has been performed both to further elucidate the possible atopic disposition, and to evaluate the duration of the disease.

MATERIAL AND METHODS

The patient material consisted of children examined during the period of 1970–72 in the Dermato-venereologic Out-patient Clinic at Marselisborg Hospital, Aarhus.

Table I. Atopic manifestations in patients and their families. Localization and duration of the dermatitis

HF=hay fever, AD=atopic dermatitis, m= male, f=female

Case	Sex	Age at onset	Duration of eczema	Distribution	History of atopy
1	♀	5	Still eczema	Toes, bilateral	Grandmother HF. Brother case no. 7
2	♂	7	9 years	Toes, anterior plantar surface, bilateral	Mother HF. Father HF. Self-positive scratch tests without symptoms
3	♂	9	4 years	Toes, bilateral	—
4	♀	9	?	Toes, plantar surface, bilateral	Self AD. Sister HF
5	♂	8	1 year	Toes, heels, bilateral	Mother HF. Self-positive scratch tests without symptoms
6	♂	11	3 years	Toes, anterior plantar surface, bilateral	—
7	♂	4	Still eczema	Toes, anterior plantar surface, dorsa; feet, bilateral	Grandmother HF. Sister case no. 1
8	♂	9	1 year	Toes, anterior plantar surface, bilateral	—
9	♂	6	Still eczema	Toes, anterior plantar surface, bilateral	Several cases of asthma on mother's side
10	♀	9	Still eczema	Toes, anterior plantar surface, bilateral	Mother asthma. Brother asthma+HF
11	♂	6	Still eczema	Toes, anterior plantar surface, bilateral	Self HF (scratch tests not performed)
12	♂	10	?	Toes, anterior plantar surface, bilateral	—
13	♂	10	1 year	Toes, interdigital webs, bilateral	Self asthma (positive scratch tests)
14	♀	7	5 years	Toes, dorsa feet, plantar surface, bilateral	Self AD. Grandmother HF
15	♂	13	2 years	Large left toe, first interdigital webs bilateral, left dorsum and planta	Grandmother asthma
16	♂	5	Still eczema	Toes, anterior plantar surface, bilateral (some changes on the fingers)	—
17	♀	7	Still eczema	Large toes, dorsum pedum, bilateral	Self AD. Brother HF
18	♂	5	Still eczema	First interdigital webs, bilateral changes on the fingers	Mother HF. Self-positive scratch tests without symptoms
19	♀	10	?	Dorsa large toes, bilateral	Self-positive scratch tests without symptoms
20	♀	11	6 years	Dorsum left foot, interdigital webs left foot	—
21	♂		2 months	Interdigital webs	—

27 patients were asked to fill in a questionnaire concerning the course of the dermatitis, current treatment, and the predisposition for atopy (hay fever, asthma, eczema). In addition they were asked to make a return visit to the clinic. 21 (14 boys, 7 girls) returned the questionnaire, and 17 (11 boys, 6 girls) appeared at the clinic for re-examination. A blood sample for IgE was taken, and standard prick tests with common allergens were performed.

54 controls with the same sex distributions as in the dermatitis group were collected in the VD Clinic among patients without any history of eczema. All were asked about hay fever and asthma among close relatives or whether they themselves suffered from asthma and hay fever.

RESULTS

At the very first examination at the clinic a skin scraping from affected areas of the feet had been

taken and examined for fungi by microscopy and culture. Moreover all patients had been tested with the Department's standard patch tests. One patient had a positive reaction to formalin. All the other tests were negative. Mean age at first appearance of the dermatitis was 8.4 years (4–13 years) (Table I). Mean age at the first visit to the clinic was 9.6 years (5–15 years).

When questioned, 8 patients reported recurrent though diminishing symptoms, the mean duration of the disease being 8.5 years. The treatment was either a non-prescriptive one, or none at all. 13 patients had no symptoms. The duration of the disease in these cases appears in Table I, which also shows the atopic predisposition, and the localization of the dermatitis.

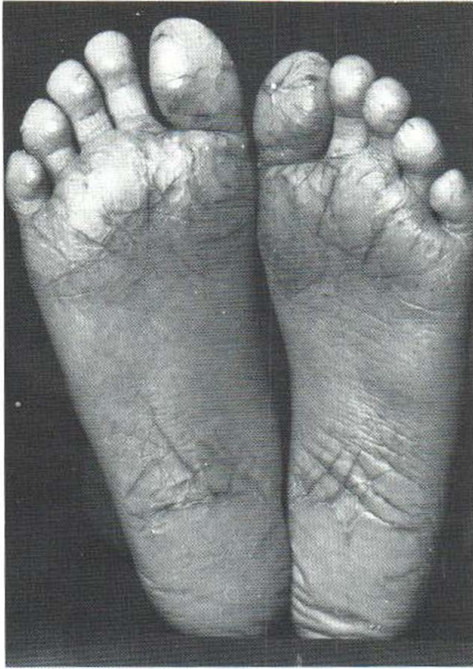


Fig. 1

An atopic predisposition was found in 14 cases. IgE was normal in all blood samples examined.

Among the controls, 17 patients revealed a history of atopy.

DISCUSSION

The existence of recurrent dermatitis of the feet in children and its association with atopy has been discussed occasionally over the last 10 years in various publications, and the disease has been given various names. Dermatitis plantaris sicca is a rather new and descriptive term. It was introduced by Friis (1) and has recently been used in a textbook of skin diseases for medical students (6).

Concerning atopy, Silvers & Glickmann (5) found a history of atopy in 60% of 15 cases with recurrent dermatitis of the feet, and they conclude that because of this constitution, these patients have a depressed resistance to primary irritants, namely shoes, which were believed to be the cause of the disease.

Halvor Møller (2) examined 13 children with "atopic winter feet" and found a family history of atopy in 54%. Among the controls only 15% had a predisposition for atopy. All of the 13 patients

demonstrated white dermographism, and he set forth the hypothesis of vasoconstrictory factors being the cause of atopic winter feet.

Friis (1) has found a predisposition for atopy in 50% of 30 children with dermatitis plantaris sicca.

Schultz & Zachariae (4) found that although 6 of 21 patients had a family history of atopy and 2 had a brother, cousin suffering from the same disease, only 2 showed positive skin tests. They also found that the trafuril test could not confirm an underlying atopic dermatitis.

Neering & van Dijk have recently found atopy in 9 relatives of 23 children with juvenile plantar dermatosis. They agree with other authors on the role of external factors as an assisting cause to the disease.

In this retrospective study, 2 patients were found not to be suffering from dermatitis plantaris sicca. In case no. 20 the lesions were unilateral, and so do not fulfil the definition. Case no. 21 seemed to have had secondary infected eczema, probably resulting from overtreatment. Consequently a history of atopy was found in 14 of 19 cases (74%) of dermatitis plantaris sicca. Among the controls the same predisposition was found in 17 of 54 patients (31.5%).

Concerning the duration of the disease it is generally stated that the condition disappears at puberty (6). 11 patients (58%) in this study were healed completely, but at the re-examination 8 patients (42%) were found to be still suffering from dermatitis of the feet. 6 of these were still in their 'teens being 17–18 years. Thus the disease in a number of cases seems to run a more prolonged course than previously assumed.

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