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## The Atopic Thigh: A 'Starting-School' Symptom?

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**Abstract.** In a retrospective survey of 1112 patients with atopic dermatitis we found that the age of onset of lesions localized to the lower gluteal and posterior femoral regions reached its peak at the age 7 to 8 years. We speculate that this is due to sweat retention caused by prolonged sitting when these predisposed individuals start school.

**Key words:** Atopic dermatitis; Thigh; Incidence

In patients with atopic dermatitis, lesions localized to the lower gluteal and posterior femoral regions are not uncommon. However, we had an intuitive feeling that this localization was not frequent among younger children but started to increase rapidly at the ages 6–8 years, or about the age when children start school in this part of the world. In order to try to prove this point we performed a retrospective survey of all children with atopic dermatitis who had visited this clinic during a 10-year period.

### MATERIAL AND METHODS

The material included all patients below 15 years of age with atopic dermatitis who had visited this clinic during the years 1970–79 and who fulfilled all criteria of this disease as defined by Solomon (3). This material consisted of 1112 patients, 589 females and 523 males. Of these only those with definite localization to the lower gluteal and the posterior femoral region and with definite information as to age at onset of lesions were included in the study. This final material consisted of 143 patients, 73 females and 70 males.

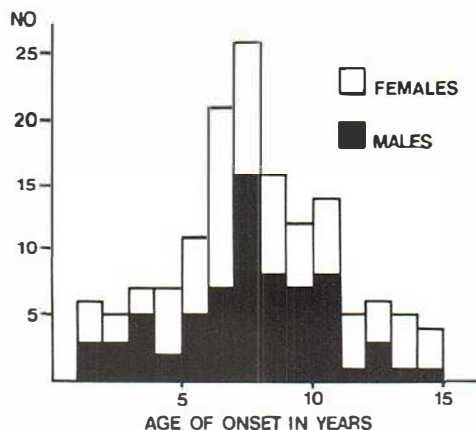


Fig. 1. Age at onset of atopic dermatitis localized to the lower gluteal and posterior femoral regions.

### RESULTS

The results are summarized in Fig. 1. The incidence of atopic dermatitis localized to the back of the thighs, as illustrated in Fig. 2, starts to increase at the age of 6 years and reaches a peak at 8 years. Thereafter there is a gradual drop. This was never the only manifestation of the disease and never the first. There were no sex differences, and type of clothing did not seem to have any influence. Lesions usually started to appear for the first time in the autumn. There was no correlation between the duration of disease and this manifestation.

### DISCUSSION

We are aware of the fact that this study, like all retrospective studies, has several inherent errors. However, a prospective study would have taken several years in order to obtain sufficient patients, and the peak of age at onset of this particular manifestation of atopic dermatitis is striking in our present material. Some hundreds of our patients had not reached the age of 6 years, and it is possible that the peak would have been even more evident if we had followed them until they were older.

It has been theorized, particularly among laymen, that this localization might be due to allergic sensitivity to plastic materials in toilet seats. This theory has never been proved, and in fact allergic contact dermatitis is rare in atopics (1). On the other hand, it is certainly true that wool and some other clothing materials may produce pruritus when in contact with the skin, but this is not due to an

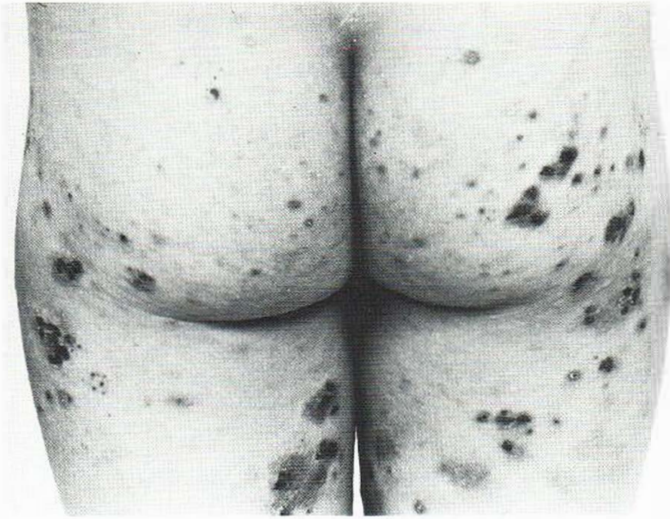


Fig. 2. Impetiginized lesions of typical localization in a boy 8 years of age.

allergic contact dermatitis but only to an increased mechanical sensitivity in these patients (2, 3). However, among our patients the irritant effect of clothing materials did not seem to be a factor, cotton being the most common clothing material in contact with this area.

We therefore speculate that the reason for the localization of atopic dermatitis to the lower gluteal and posterior femoral regions—a localization that is noted in about 13% of these individuals—is sweat retention, as discussed by Sulzberg & Herrman (4). The incidence is highest among children of early school age, which coincides with the period when children for the first time in their life have to sit down for prolonged periods due to the school curriculum. Irrespective of clothing material, prolonged sitting will produce occlusion of the skin and sweat retention with pruritus and dermatitis as a result.

Starting school may also impose a psychological stress that may compound the flare-up of the disease at this age (3). We think that the "atopic thigh" is a 'starting-school' symptom of atopic dermatitis.

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### Hereditary Palmo-Plantar Keratoderma: Incidence of Dermatophyte Infections and the Results of Topical Treatment with Retinoic Acid

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**Abstract.** Thirty-four patients with hereditary palmo-plantar keratoderma (HPPK) were examined with regard to dermatophyte infections. Twenty-two of the patients (65%) had dermatophytosis, a figure indicating a predisposition of this type of infection. *E. floccosum* was found in 50% of the HPPK patients as compared with 17% of the dermatophytoses of palms and soles in non-HPPK patients ( $p < 0.01$ ). Topical treatment of HPPK with 0.05% retinoic acid without occlusion had no observable effect.

**Key words:** Keratoderma; Heredity; Palmo-plantar; Dermatophyte infections; Retinoic acid