Psoriasiform Acral Dermatitis: Long-term Follow-up of 10 Cases

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Sir,

The term psoriasiform acral dermatitis (PAD) was coined by Zaias in 1980 (1) to describe a distinctive psoriasiform dermatitis selectively localized on the distal phalanges of the fingers and associated with a remarkable shortening of the nail bed. In the last few years only 8 patients affected by this unusual chronic dermatosis have been reported in the literature (1–4). Seven of these patients were children under 10 years of age. In 1999 we described PAD in 3 children affected by psoriasis followed up until now and we concluded our report with an open question as to whether PAD was a distinctive entity or just a clinical manifestation of psoriasis in children. In the latter situation the most appropriate term to define this entity would be "psoriatic acral dermatitis", PAD being a particular variety of acral psoriasis in childhood that can be isolated or associated with typical lesions of psoriasis in other cutaneous areas (4). Over the last 8 years we have had the opportunity to observe PAD in another 7 Caucasian children.

The aim of our study is to answer the above-mentioned question by means of a larger case study with a long-term follow-up and the possible appearance of other cutaneous diseases in the affected patients. In our department from 1993 to 2007 a diagnosis of PAD was made in 10 Caucasian children aged from 2 to 6 years (mean age 4.2 years). All 10 patients were boys and 2 were brothers. All the patients had the typical features of PAD: (*i*) psoriasiform scaling lesions on the palmar surfaces of the digits; (*ii*) a sclerodermoid appearance of the dorsa of the digits, which eventually became fusiform; (*iii*) apparent shortening of the nail plate and disappearance of the lunulae on the affected digits (Fig. 1). The cuticulae extended onto the nail plate of the affected digits in all patients. Only 2 cases showed nail plate alterations: trachyonychia in case 4 and onychodistrophy in case 7. The remarkable shortening of the nail plate was similar in all patients. No patients had any hobbies, except football, or any type of exposure that would potentially exacerbate PAD. In 7 cases improvement occurred in summer during seaside holidays. All patients were negative for extra-dermatological diseases during the timeframe of this study. Table I shows the dermatological family, personal history and follow-up of our cases. Eight out of our 10 patients were clinically followed up. For 2 patients (brothers, cases 8 and 9) we have had no clinical consultations since 1997 but only telephone interviews. The two brothers have communicated a complete recovery from PAD and did not report any other skin lesions. Physical examination, apart from PAD, was positive for psoriasis in all the other 8 patients. Psoriasis had been present before the start of PAD in 3 cases (2 children with palmo-plantar psoriasis and one with psoriasis vulgaris and plantar psoriasis). In the other 5 cases psoriasis started after PAD. A complete recovery from PAD was observed in all 6 patients aged over 15 years (cases 1–4, 8 and 9), whereas the remaining 4 patients aged under 15 years continued to present recurrences. In the 6 recovered patients PAD disappeared between the age of 11 and 15 years, but psoriasis persisted in the 4 cases affected by this disease. The distinctive nail shortening is resolving, implying that shortening represents hypertrophy of the cuticle, as a result of dermatitis, rather than a permanent anatomical change in the nail bed.

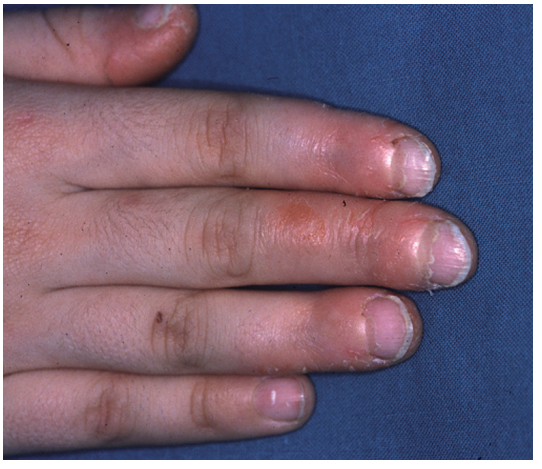

Fig. 1. Patient 2, aged 10 years. Psoriasiform acral dermatitis of the back of the right hand after a 2-year follow-up.

Topical emollients, keratolytics, coal tar, glucocorticoids and etretinate (0.5 mg/kg/day in 2 patients) showed poor results in our patients. Moderate to good transitory improvement was obtained with topical calcipotriol ointment alternated with potent topical glucocorticoids. Transitory improvement was seen also with tacrolimus 0.03% and 0.1% ointment (Protopic®) in 5 patients (cases 4–7 and 10) who had not responded to other forms of topical therapy.

In conclusion, these results show that PAD in 8/10 of our patients should be considered a very rare and peculiar variety of acral psoriasis in childhood. PAD may manifest very different degrees of severity and, when many fingers are affected, may cause marked disability due to its resistance to treatment. However, it

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Table I. *Clinical data and follow-up of 10 patients with psoriasiform acral dermatitis (PAD)*

Patient	Sex	Age of onset (years)	Age now (years)	Follow-up (years)	Age at recovery (years)	Dermatological family history	Dermatological personal history
1[a,c]	M	6	20	11	14	Negative	Plantar psoriasis + psoriasis
2[a]	M	4	19	13	15	Atopic disease manifestations	Psoriasis
3[a,c]	M	6	20	13	13	Psoriasis	Palmo-plantar psoriasis
4	M	4	14	3	12	Psoriasis + atopic disease manifestations	Follicular psoriasis
5	M	4	10	3	No[d]	Atopic disease manifestations	Psoriasis
6	M	3	13	1	No[d]	Psoriasis	Psoriasis + atopic dermatitis
7[c]	M	4	10	6	No[d]	Atopic disease manifestations	Palmo-plantar psoriasis
8[b]	M	4	19	12	11	PAD	Negative
9[b]	M	2	18	9	13	PAD	Negative
10	M	5	10	2	No[d]	Atopic disease manifestations	Psoriasis

[a]Cases reported in 1999 (4).
[b]Brothers, telephone interviewed.
[c]Patients presenting psoriasis before PAD.
[d]No recovery

may show a complete spontaneous recovery at puberty independently of its severity at onset and its possible association with other manifestations of psoriasis.

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