Calcipotriol cream in childhood psoriasis

Short report

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ABSTRACT

Background. Calcipotriol ointment, a vitamin D3 synthetic derivative, confirmed its efficacy and its high safety when employed in the treatment of adult psoriasis and sometimes in children, too.
Cream seems to be the most clinically appropriate choice to treat particularly delicate and easily irritable skins.

Methods. Nine enrolled psoriatic children (mean age 10.1± 4.1 SD years) were treated with calcipotriol cream (50 µg/g) 2 application/day during six consecutive weeks.
PASI (Psoriasis Area and Severity Index) was evaluated at fortnightly visits. Furthermore, routine laboratory parameters were controlled before and at the end of the treatment.

Results. Mean PASI was 2.2±0.5 (SEM) at the baseline, and decreased to 0.7±0.5 after six weeks of treatment; a 65.9% reduction was seen. Calcipotriol cream showed an excellent safety, as the lack of irritant cutaneous adverse reactions and/or laboratory parameters alterations.

Conclusion. Our clinical experience suggests Calcipotriol cream as one of the most important therapeutic choice in psoriasis.

KEY WORDS

psoriasis, calcipotriol cream

Introduction

Child psoriasis involves some difficulties, both in diagnostic and therapeutic approach. A correct diagnosis, when the disease arises, is obstructed by both its different clinical expressions and the impossibility to carry out a biopsy, in order to obtain the necessary histological findings (1).

Consequently, the real pediatric psoriasis incidence is difficult to assess. The results of epidemiological studies are contrasting. Up to now, it is certain that psoriasis arises progressively from infancy to the adult age; 20-25% of psoriatic patients show psoriatic signs also during the earliest years; psoriasis developed before 10 years of age in a 10%, before 5 years in a 5% and before 2 years in a 2-3% of cases (2, 3).

The therapeutic approach to the psoriatic child is complicated by both the child compliance, that absolutely requires parents/tutor assistance and the dermatologist's obligation to carefully evaluate the advantage/

risk ratio linked to therapy, considering both the patient's age and the psoriasis severity (4).

Emollients, bath oils, salicylic acid or urea, and non-fluoridated topical steroids for a short-term treatment are preferred treatments. Oral retinoids and PUVA therapy are reserved to more severe conditions (5,7).

International experiences show good clinical results, obtained after the administration of calcipotriol ointment, a vitamin D3 synthetic derivative, active in the inhibition of keratinocytes proliferation, while it is characterized by a poor activity in increasing calcium metabolism as compared with 1,25 (OH)2 D3 natural metabolite (8).

Calcipotriol is also available as cream, the most appropriate formulation for particularly delicate types of skin.

Substantial clinical experience is at present available on calcipotriol cream in the treatment of adult psoriasis, whereas only few publications on psoriatic children have appeared so far. At present no important side effects are reported (9).

The aim of the study was to evaluate efficacy and safety of calcipotriol cream (50 µg/g) in childhood psoriasis.

Materials and methods

This open study was carried out in accord to the principles of Helsinki Declaration. Nine patients of both sexes (5 males, 4 females, mean age 10.1±4.1 SD, range 3-16 years), with psoriatic lesions involving less than 10% of total body surface, were admitted to the study. They were affected by psoriasis for 4.4±2.7 years. In 4 out of 9 cases psoriasis was familiar.

A written informed consent, given by co-operative parents was required.

Patients were excluded if scalp and/or skin fold psoriasis or hypercalcemia (total serum calcium more than the upper normal limit) were present. Patients who underwent calcium or vitamin D therapy or other concomitant systemic drugs that could interfere with the clinical results (e.g. systemic steroids) were also excluded from the study.

A two-week washout period from former anti-psoriatic therapies was planned. During the six weeks of treatment patients were invited to apply calcipotriol cream (50 µg/g) twice a day on psoriatic lesions. At the end of the treatment, patients underwent a follow-up period of four weeks without therapy.

PASI (Psoriasis Area and Severity Index) was evaluated at baseline, at two-weekly visits during the treatment and also at the end of the follow-up. Furthermore, routine laboratory parameters were controlled before and at the end of the six weeks of treatment.

Results and conclusions

One of the nine patients missed the control visits after two weeks of therapy.

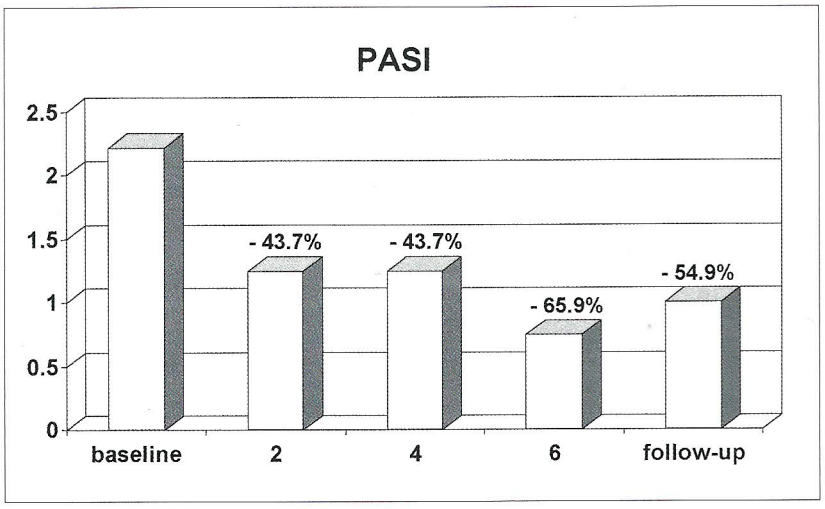
In other patients, after six weeks of treatment, erythema, infiltration and scaling were completely cleared on the trunk, and were of mild severity on the upper and lower limbs. A further improvement was observed at the end of follow up. Figure 1 shows the PASI score reduction.

Neither adverse skin reactions nor significant alterations of laboratory parameters were noted.

Our clinical data and those already published on the same subject (10,11), respectively on 66 and 8 children (mean age 9.7 and 8 years; 51% and 78.8% PASI reduction after 8 weeks respectively), show the therapeutic efficacy already evident from the second week of treatment. A high topical and systemic tolerability allows the extension of the treatment period until all the lesions are completely cleared.

These data support the use of calcipotriol cream as the treatment of choice in mild to moderate childhood psoriasis.

Figure 1. Evaluation of PASI



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