

Nail Psoriasis: A Combined Treatment Using Calcipotriol Cream and Clobetasol Propionate Cream

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Sir,

Calcipotriol, a vitamin D derivative, has proven to be effective in the treatment of nail psoriasis (1–4). The purpose of this open study was to evaluate the efficacy and safety of the combined treatment of nail psoriasis with calcipotriol cream and clobetasol propionate cream, and to investigate whether calcipotriol exhibits a steroid-sparing effect.

PATIENTS AND METHODS

Sixty-two patients, (42 males and 20 females, mean age ($\pm$ SD) 48.4 ± 12.1 years) participated in this study. All of these patients suffered from skin psoriasis, with a mean duration of 10.1 years, while their nail involvement had a mean duration of 9.6 years. Two female patients failed to attend the follow-up visits and they were considered as dropouts.

Forty-eight patients presented with fingernail psoriasis and a total of 142 nails were affected. The mean value of hyperkeratosis thickness was 2.9 mm ($\pm$ 0.1) at baseline. Fifty-three patients had toenail disease, with a total of 109 nails affected, and a mean hyperkeratosis thickness of 3.3 mm ($\pm$ 0.1), also at baseline. Patients with major symptoms of severe subungual hyperkeratosis were included in the study, once a diagnosis of nail psoriasis had been made. Onychomycosis was excluded by laboratory investigation (direct microscopy and culture). Patients under 18 years of age, pregnant or breastfeeding women, those receiving vitamin D therapies and other topical or systemic medications for psoriasis were not included in the study.

Each patient was instructed to use calcipotriol cream every night, 5 times/week during weekdays, and clobetasol propionate cream 2 times/week, on Saturday and Sunday nights. They were also instructed to use both creams on the nail folds and on top of and under the nail plate, on the hyperkeratosis of the nail bed and on the hyponychium, avoiding trauma of the region. Treatment duration was 6 months and the patients were followed-up for a further 6 months, using only clobetasol propionate cream, 2 nights per week.

The patients were assessed monthly and hyperkeratosis was measured in millimetres. Patients were also asked to express their own opinion on efficacy and to report any side effects of treatment. A 4-point rating scale was used to assess efficacy: 1 = poor, 2 = fair, 3 = good, 4 = excellent.

RESULTS

After 2 months of treatment, the mean thickness of hyperkeratosis was reduced by 35.2% on the fingernails, and by 32.6% on the toenails. In continuation, the mean reduction of hyperkeratosis at month 4 was 44.9% for fingernails and 47.5% for toenails, at month 6 the reduction was 72.3% and 69.9%, respectively, and at month 12 the decrease was 81.2% and 72.5%, respectively.

Table I. Patients' own opinion regarding efficacy after 12 months

	Hands (n = 48) n (%)	Feet (n = 53) n (%)
Poor	3 (6.2)	6 (11.3)
Fair	8 (16.6)	11 (20.7)
Good	21 (43.7)	22 (41.5)
Excellent	16 (33.3)	14 (26.4)

At the end of the treatment and follow-up period (12 months), the patients were asked to express their own opinion regarding the efficacy of treatment. (Table I).

Adverse reactions reported by the patients were mild. Only two patients (1 male and 1 female) reported a mild, burning sensation at the site of application of the creams. Patients considered calcipotriol cream responsible for this phenomenon.

DISCUSSION

Topical calcipotriol ointment used twice a day for 3 months, resulted in an almost 50% reduction of subungual hyperkeratosis (4). Further improvement was achieved by prolonging the treatment for another 2 months.

In our study, treatment with calcipotriol cream 5 times a week, combined with clobetasol propionate cream twice a week, led to an even greater improvement in the subungual hyperkeratosis, reaching a mean value of 77% by the end of the follow-up period, which was assigned at 12 months.

The good clinical results could be maintained using a steroid cream twice a week only. Thus, successful treatment of nail bed psoriasis can be achieved by using calcipotriol cream combined with a short treatment period with a potent steroid cream.

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