

Antipruritic Effect of Oral Cyclosporin A in Essential Senile Pruritus

Sir,

Ten patients, aged between 59 and 72 years (6 women and 4 men), affected with essential pruritus were enrolled in the study after verbal informed consent was obtained. At clinical investigation all patients presented with discomforting diffuse pruritus of 6 to 11 months' duration and which frequently disturbed sleep at night. None of the subjects presented any specific skin alterations and all were resistant to oral antihistamines, topical and systemic corticosteroids and topical emollients.

MATERIAL AND METHODS

Study design

This open uncontrolled study was designed for subjects with persistent pruritus for a minimum of 6 months before entry into the study. Routine laboratory tests, IgE level, serum complement, thyroid hormone levels, chest X-ray, were all within normal limits and stool examination for parasites was negative in all subjects. Excluding criteria to enter the study were hepatic or renal affections, pre-existing hypertension or history of malignancies, acute infection, pathological routine laboratory tests, drug or alcohol abuse. Any topical and systemic medications previously prescribed for the treatment of pruritus were stopped 4 weeks before the start of the study. All subjects were treated with Cyclosporin A (CyA) oral solution (Sandimmun Neoral, Sandoz) 5 mg/kg/day in two administrations for 8 weeks. The initial dose was maintained for 4 weeks and then gradually reduced by 0.5 mg/kg/day every week until discontinuation of the therapy. Patients were monitored at each visit for CyA side effects, in particular renal or liver dysfunction and changes in blood pressure. Patients were followed-up for 3 months after the end of treatment to evaluate relapse of symptoms.

Recording of itching intensity

The effects were evaluated by measuring itch intensity using a visual analogue scale (VAS) in which the subjects indicate the intensity of itch on a scale ranging from no itch to maximal itch. The assessment of the itch score on the first 2 days constituted a patient's baseline value; the itch score was recorded on days 0, 7, 14 and 28 and then every 2 weeks until discontinuation of therapy (8 weeks).

Statistical analysis

Statistical analysis was performed using Student's *t*-test for paired data. Data were expressed as mean values \pm SD and a *p* value less than 0.05 was considered significant.

RESULTS

All 10 subjects completed the study. The status of pruritus was assessed and compared with the baseline using the VAS forms filled in by patients at each visit. CyA treatment significantly reduced the itch intensity in all 10 patients. Four patients experienced an improvement of pruritus within a few days. Six others showed a decrease in itch on days 10–12. A total of eight subjects were free of pruritus within the 4th week of treatment, but two subjects who had experienced consistent itch relief by the 14th day of CyA treatment had no further improvement. At the clinical follow-up no relapse were reported until 3 months after discontinuation of therapy. One subject referred a mild localized pruritus 1 month after discontinuation of therapy.

None of the patients enrolled had significant adverse reactions to CyA treatment. Two patients had an increase in diastolic blood pressure (100 mmHg) reversible on dose adjustment. No laboratory test modifications occurred in any of the subjects.

The antipruritic effect of CyA needs to be clarified, including the possible hypothesized role of CyA in inhibiting certain "pruritogenic cytokines" or counteracting certain neuropeptides released *in situ* in the skin (1, 2).

REFERENCES

1. Wahlgren CF, Scheynius A, Hägermark Ö. Antipruritic effect of oral cyclosporin A in atopic dermatitis. *Acta Derm Venereol* (Stockh) 1990; 70: 323–329.
2. Teofoli P, Guarcello V, Lotti T, Panconesi E. Detection of mRNA encoding proopiomelanocortin (POMC) in the epidermoid cell line A431. *Int J Immunopathol Pharmacol* 1997; 10: 1, 69–71.

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