

# Short-term Treatment with Cyclosporin in Severe Psoriasis: Four Years of Experience

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The effectiveness of cyclosporin (CsA) in the treatment of severe psoriasis is now well recognized (1, 2). Since psoriasis is a chronic recurrent disease, we used a discontinuous treatment instead of a long-term treatment in order to minimize the side effects of CsA. The preliminary results of a 4-year experience with short-term treatment with CsA in psoriasis are reported.

## PATIENTS AND METHODS

In an open study 142 consecutive patients (94 M, 58 F) aged 11-80 years (mean  $42.84 \pm 15.3$ ) affected by severe psoriasis underwent one or more short-term treatment cycles with CsA. The duration of the disease ranged between 1.5-55 years (mean  $10.3 \pm 8.2$ ).

The patients had previously been treated with retinoids, PUVA, systemic corticosteroids, or methotrexate. We have differentiated the patients depending on the various clinical variants of the disease: 121 patients with extensive chronic plaque psoriasis (ECP), 11 with guttate eruptive psoriasis (GP), 5 with chronic palmo-plantar pustular psoriasis (CPPP), 1 patient with generalized pustular psoriasis (GPP), and 4 patients with sub-erythrodermic psoriasis (sE).

The exclusion criteria were as follows: psoriatic arthritis, renal and liver disease, pregnancy, neoplastic diseases, arterial hypertension, infections and diseases requiring the use of nephrotoxic drugs.

The efficacy of CsA treatment was assessed using PAI index (Psoriasis Area Involvement). The extent of the rash was estimated by the rule of nines. Clinical evaluation was performed every 4 weeks during the treatment: physical examination, resting blood pressure, heart rate, hematochemical tests, CsA blood levels. In the post-treatment period (6 months) each patient was examined every 1-2 months. Hematochemical tests were performed 1 month after stopping therapy.

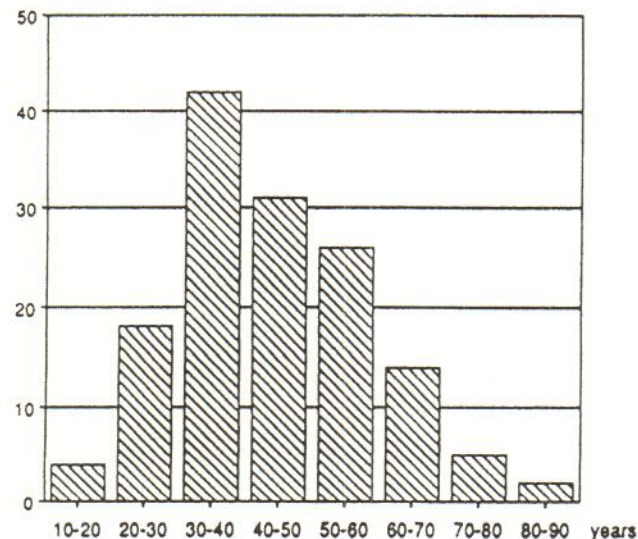


Fig 1. Distribution of the patients according to age.

## SCHEDULE OF TREATMENT

The initial CsA daily dose was 5 mg/kg in 4 patients (suberythrodermic patients) and 4-3 mg/kg in 138 patients. The daily CsA dose was gradually reduced to 3 mg/kg according to clinical response. The average rate dose was 3.7 mg/kg/day. The mean duration of a single treatment cycle was  $7.5 \pm 2$  weeks (range 4-12). Remission was defined as reduction by >75% of the baseline PAI score and resolution of at least 2 points out of 0-3 scale score of desquamation, erythema and infiltration; significant improvement was defined as reduction of >50% in the PAI score.

The only adjuvant therapy allowed during CsA treatment was white petrolatum. During a disease-free interval, patients were allowed to use topical steroids, topical tar or eliotherapy in order to control new starting lesions. A new CsA treatment period was started when the patients showed a recurrence of the disease. Relapse was defined, according to the Italian Multicenter Study Group(2), as clinical worsening characterized by an increase in the baseline PAI index of more than 50% of original baseline value.

## RESULTS

In ECP, after the first cycle of CsA therapy, clinical remission was observed in 93 patients, considerable improvement in 25 patients, while 3 patients did not respond because of poor compliance. The mean time of clearing was  $7 \pm 2$  weeks, range 3-8. The mean duration of remission was  $12 \pm 4$  weeks.

After stopping therapy, we found a relapse rate of about 70% during a follow-up of 6 months. Nevertheless, the relapse rate was similar after consecutive CsA treatment cycles.

In the GP, after the first CsA cycle, clinical remission was

Table I. Results after 1st cycle of CsA therapy

	ECP	GP	CPPP	GPP	sE
Remission (>75)	93/121	11/11	4/5	1/1	3/4
Improvement (>50<75)	25/121	0/11	1/5	0/1	1/4
Failure	3/121	0/11	0/5	0/1	0/4
Time to clearing					
Mean (weeks)	$7 \pm 2$	$6 \pm 2$	$7 \pm 1$	4	8
Range	3-8	3-6	4-8	4	7-9

Table II. Relapse rate of consecutive CSA treatment in chronic extensive plaque psoriasis

Cycle no.	Patients evaluable n	Relapse rate (%)	Follow-up (months)
1	58	76	6
2	19	71	6
3	11	67	6

observed in 11/11 patients, the time to clearing was  $6 \pm 2$  weeks (range 3–6). Nine of the 11 patients are still in remission (the follow-up 8 months). Only 2 patients required a second cycle of treatment (the follow-up being 6 months).

In CPPP, clinical remission was achieved in 4/5 patients and considerable improvement in 1/5. The mean time of clearing was  $7 \pm 1$ , range 3–8 weeks. One patient healed sufficiently and did not require further treatment, the disease was easily controlled by local therapy (the follow-up being 6 months). The other 4 patients underwent three consecutive CsA treatments in a period of 2 years. The only patient affected by GPP healed after 4 weeks of treatment. In the 4 month follow-up he noticed a few lesions easily controlled by local therapy.

Out of the 4 patients affected by sE psoriasis, 3 presented remission, while 1 showed considerable improvement after the first CsA treatment. One patient dropped out after the first CsA cycle; 3 patients are still taking CsA.

The time to clearing and the duration of remission was found to be almost identical in the different clinical variants of the

disease after consecutive cycles of treatment, except that the time to clearing was longer for the sE patients.

Concerning side effects, the most frequent were found to be mild subjective symptoms such as abdominal pains, nausea, meteorism, paresthesias, asthenia, cephalaea, myalgia. We also observed mild arterial hypertension in 4 patients, and hypertriglyceridemia in 6 patients. None of these patients discontinued their treatment because of the side effects.

In 15 patients, after consecutive Csa cycles, a slight increase in serum creatinine level up to 30% of the baseline value, was found. None of the relapsing patients presented any signs of disease rebound after repeated short-term CsA treatment cycles.

## REFERENCES

1. Christophers E, et al. Cyclosporin in psoriasis: a multicenter dose-finding study in severe plaque psoriasis. *J Am Acad Dermatol* 1992; 26: 86–90.
2. Cycosporin in severe psoriasis: the Italian experience. *Dermatology* 193; 187 (Suppl 1): 1–44.