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ATOPIC DERMATITIS AND SYSTEMIC TREATMENT WITH A NEW CHROMONE COMPOUND (FPL 57787) A DOUBLE BLIND CLINICAL TRIAL

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Abstract. In a double-blind cross-over trial, 23 adults with atopic dermatitis were treated systemically during two 6-week periods with a new anti-allergic chromone compound (FPL 57787) 18 mg four times a day or matched placebo in randomized order. Twenty patients completed the study: 11 preferred the active period, 9 preferred the placebo period. There were no statistically significant differences for any parameter. Four of the patients had drug-related dyspepsia. No laboratory side effects were noted.

Key-words: Atopic dermatitis: Chromone-carboxylic acid; Systemic treatment: Double-blind cross-over trial

In a recently published study (5) with a new chromone compound, FPL 57787, in the systemic treatment of adult atopic dermatitis (AD) we observed nearly identical recovery in the active group and the placebo group during the trial and there were no statistically significant differences in the clinicians' scores for any parameter. However, in the active group there was relatively little use of topically applied steroid. We therefore designed a new trial, using the active drug in a higher dose.

MATERIAL AND METHODS

The new drug is a chromone-2-carboxylic acid (FPL 57787) with the empirical formula $C_{17}H_{18}O_8$. The in vitro anti-allergic properties have been described earlier (5).

The material consisted of 23 patients suffering from AD. They all gave their informed consent after the trial had been fully explained. All were above 18 years of age and selected in accordance with the criteria laid down by Hanifin & Lobitz (4). Patients with severe AD and patients receiving systemic steroid therapy were excluded. Only women using effective contraceptives were accepted as participants. The patient characteristics are listed in Table 1.

The study was performed as a double-blind cross-over trial in order to compare the efficacy and safety of FPL 57787 with a matched placebo. After a 2-week baseline period, the two treatments, each lasting 6 weeks, were given in randomized order. The dose in the active period was 18 mg FPL 57787 four times a day. The study was carried out from October to December 1978. All previous treatment was stopped. After the baseline period the patients were seen once every 3 weeks. At each visit they were given 1 % hydrocortisone cream and asked to use topical treatment only when necessary. At the visits the clinician evaluated dryness lichenification, excoriation and dermatitis on a 0–3 scale and the extension in shading on the affected areas.

The following laboratory investigations were performed during the trial: ESR, whole-blood count, haematocrit, MCV, MCH, MCHC, differential white cell count, platelets, sodium, potassium, calcium, albumin, urea, creatinine, acid phosphatase, basic phosphatase, SGOT, SGPT, LDH, phosphate, urate, total lipid, bilirubin, cholesterol, iron and prothrombin time. Urine was analysed for blood, protein, and glucose. The statistical analysis for patients and clinicians' preference for one of the two treatment periods was made at the two-tail 5% level using a sign test for paired data.

RESULTS

The study was completed by 20 patients and both patients and the clinicians preferred the same treat-

Table 1. *Patient characteristics in an atopic dermatitis material of 23 cases treated with a chromone preparation (FPL 57787)*

Sex	Male	8
	Female	12
Age (years)	Mean	27.6
	Range	18–41
Age at onset (years)	Mean	1.5
	Range	0–10
Other allergic diseases	None	7
	Asthma	9
	Hay fever	12
Family history	None	4
	Eczema	11
	Asthma	8
	Hay fever	11
Severity of eczema	Mild	14
	Moderate	6
IgE (U/ml)	Mean	1 680
	Range	2–8 816

ment period. Eleven patients preferred the active period, while 9 patients preferred the placebo period. There were no statistically significant differences in the clinical assessments, in the patients' diary cards, or in the use of hydrocortisone cream. During the trial, 3 patients withdrew, 2 of them for reasons having no relation to the trial and 1 because of nausea, vomiting and dizziness starting in the active period. Furthermore, 3 of the patients who completed the study had drug-related dyspeptic symptoms in the active period. The laboratory tests were all within normal range.

DISCUSSION

In the field of dermatology, oral disodium chromoglycate (DSCG) seems effective in the treatment of food allergy, mastocytosis and dermatitis herpetiformis (1, 8, 7). Oral DSCG has also been used in AD, but only preliminary and uncontrolled investigations are available (6). There are also conflicting data about topically used DSCG in AD (3, 9).

The new oral anti-allergic drug, FPL 57787, has shown promising properties in in vitro investigations and in the systemic treatment of asthma (2). In patients with more atopic diseases or AD, which cannot be controlled by moderate use of topical ointment, the oral treatment by a non-steroid compound would be a welcome alternative in the management of AD.

Our first study (5) gave some evidence that FPL 57787 might be effective in the treatment of AD. However, we may conclude that the present trial could not demonstrate any effect of FPL 57787 in systemic treatment of AD. Furthermore, the applied dose resulted in some dyspeptic side effects.

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DISCUSSION

Barnetson (Edinburgh). We have been carrying out a similar study on a similar chromone, double-blind, for 3 months on effective drugs and for 3 months on placebo and we have found that the drug had no improved effect over placebo. If food allergy plays any part in the atopic eczema, one feels that drugs like this should be having some effect, but it may be that one needs to study a chromone whose effect is localized to the gut.

Schoepf (Freiburg): Our impressions of this new chromone drug are a little bit better. We made the same double-blind study as you, with the same design, and of 11 patients 8 showed improvement and 3 no effect, but I think that we have to distinguish between several types of atopic dermatitis. I feel that the patients with chronic lichenified eczema did not respond and the other atopics with flushes and acute deterioriations responded.