Treatment of itching in atopic eczema with antihistamines with a low sedative profile

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The mechanisms of itching associated with atopic eczema remain controversial. Treatment with conventional antihistamines is generally thought to benefit the patient only by a central mechanism concerning sedation, though there are scant clinical data to support this contention. The availability of a new generation of antihistamines with a low sedative profile, such as terfenadine and acrivastine, has yielded the chance to explore further the mechanisms of itching in atopic eczema and to evaluate whether such agents are likely to yield benefits additional to those of treatment with topical corticosteroids and emollients.

Patients, methods, and results

Forty-nine adult outpatients with a clinical diagnosis of atopic eczema (20 men, 29 women; mean age 26-8 (range 16-58) years) were entered into the study with their informed consent. The study's design was parallel, fully randomised, double blind, and placebo controlled. The treatment courses of 10 days consisted of three doses a day of acrivastine 8 mg, terfenadine 60 mg, or placebo. All patients were concomitantly treated with a standardised regimen of topical treatment consisting of a twice daily application of 0-05% clotetasone butyrate ointment and aqueous cream as a soap substitute.

Patients were evaluated on entry into the study and after seven and 14 days. Techniques of assessment included patients' self assessment forms, visual analogue scales completed by the patients (on entry and after seven days), and an investigator's assessment based on direct questioning and careful examination of the skin. Data relevant to the control of itching, overall benefit to the patient, adverse events, and the acceptability of and compliance with treatment were collected.

At the end of the study data from 44 patients (18 men, 26 women; mean age 26-6 (range 16-58) years) were available for analysis. Five patients (three taking acrivastine, one taking terfenadine, and one taking placebo) failed to return for follow up. The table summarises the results. The two active agents were more effective than placebo for all variables assessed. Acrivastine significantly reduced itching when compared with placebo according to the doctor's assessment (p=0-01, Fisher's exact test). Both acrivastine (p=0-026, Mann-Whitney U test) and terfenadine (p=0-037, Mann-Whitney U test) improved the patient's condition significantly more than placebo according to the patient's assessment of the degree of benefit obtained. Terfenadine significantly reduced itching on day 7 compared with placebo, according to the visual analogue scale (p=0-01, Newman-Keuls multiple range test). Generally the data indicated that the benefit provided by the active agents was slight but clearly detectable. No significant differences were found between the two active treatments.

Comment

Our results suggest that acrivastine and terfenadine can partially relieve itching in atopic eczema. These data are perhaps more striking when it is considered that these antihistamines were effective against a background of concomitant treatment with a moderately potent corticosteroid ointment and an emollient soap substitute. This suggests that these agents can enhance the benefits of routine topical treatment for atopic eczema.

The ability of two separate agents, whose only known mechanism of action is through blockade of H1 histamine receptors and which are both devoid of any major sedative action, to alleviate itching in some patients with atopic eczema has interesting mechanistic implications. The data imply that histamine has an active role, though the mechanisms of itch may not be homogenous in nature and the part played by histamine may be greater or smaller in individual patients.

The widely held belief that treatment of itching in atopic eczema with older, traditional antihistamines operates only by the well known sedation associated with such agents must be questioned.

4 Comparisons were made with respect to individual antihistamines, except in the case of patients receiving placebo in whom the effect of all treatments was compared.

*Adjusted with baseline scores as a covariate; minimum = 0, maximum = 100.
**No improvement, 3—completely relieved.

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