December 1987, Vol. 26, No. 10

Acrivastine Versus Clemastine in the Treatment of Chronic Idiopathic Urticaria

A Double-Blind, Placebo-Controlled Study

LENNART JUHLIN, M.D., J. R. GIBSON, M.B., S. G. HARVEY, B.SC., AND L. W. HUSON, B.A., PH.D.

Acrivastine, a new, potent H_1 antihistamine, is a derivative of triprolidine with a low sedative profile[1] and negligible anticholinergic effects. It has previously been shown to be effective in the treatment of chronic idiopathic urticaria[2] (CIU) and idiopathic acquired cold urticaria.[3] Clemastine is a well-known H_1 antihistamine that has been widely used in the treatment of histamine-mediated itching dermatoses. We felt it to be of clinical interest to compare these two agents in the treatment of patients with CIU.

Materials and Methods

Informed, consenting adult patients of either sex, with a diagnosis of CIU, were eligible for entry into the study. Eighteen patients (6 men, 12 women; age range 14–75 years; mean age 43.2 years) entered strictly according to the randomized treatment plan were evaluated. The duration of CIU ranged from 2 months to 14 years (mean 3.4 years), with seven patients considered to have moderate symptoms and 11 to have severe symptoms on entry. All patients were experiencing attacks of urticaria on at least alternate days (range 3–7 days per week; mean 5.9 days per week). Trial materials were provided by the Wellcome Foundation Limited, London, and consisted of acrivastine 8 mg, clemastine 1 mg, and placebo. Medications were allocated according to a fully randomized, double-blind, cross-over plan. Each treatment was taken three times per day for 5 days, with a 3-day break without medication for CIU prior to commencing the study and a 2-day break between treatments. The taking of other medications, relevant to the treatment of urticaria or likely to cause sedation, was not permitted during the study period. Treatment effects were documented using a detailed patient self-assessment form that was completed daily and a doctor's questionnaire. Data concerning efficacy, patient acceptability, adverse events, and compliance with treatment were collected.

Statistical methods used for evaluation of data were both parametric and nonparametric as appropriate, and included analysis of variance and Cochran's test.[4]

From the Department of Dermatology, University of Uppsala School of Medicine, Uppsala, Sweden, and the Wellcome Research Laboratories, Kent, England

Address for correspondence: Dr. J. R. Gibson, The Wellcome Research Laboratories, Langley Court, Beckenham, Kent BR3 3BS, England.

Results

Data from the patients' self-assessment forms showed that both active agents were significantly better than placebo in relieving itching and in reducing overall discomfort ($p < 0.01$). The active treatments also helped symptoms more often and to a greater degree than placebo ($p < 0.05$).

The results of the doctor's questionnaire are summarized in Table 1. Both active agents were significantly better than placebo in "helping itching/wheal-ing," "helping itching/whealing best," and "suiting the patient best overall" ($p < 0.02$). This latter category took into account both efficacy and patient acceptability of the test medications.

No significant differences between acrivastine and clemastine were recorded; however, when present, trends concerning efficacy generally favored acrivastine.

No serious adverse events occurred during the study period; however, drowsiness was reported by six patients while on clemastine, as compared with one patient each on acrivastine and placebo. The strong trend for clemastine to produce more sedation than placebo did not reach statistical significance in this relatively small group of patients.

Discussion

This study confirms the efficacy of acrivastine and clemastine in the treatment of CIU. It also lends sup-

TABLE 1. *Summary of Data From Doctor's Questionnaire*

Number† of Patients in Whom the Drug	Acrivastine	Clemastine	Placebo
Helped itching	16*	13*	8
Helped wealing	13*	12*	3
Helped itching best	11*	8*	2
Helped wealing best	9*	9*	0
Caused drowsiness	1	6	1
Suited patient best overall	11*	7*	1

* Significantly different from placebo ($P < 0.02$).
† More than one drug could be chosen for each treatment effect.

port to the claimed low-sedative profile of acrivastine. In clinical practice, there is clearly a place for both sedating and less-sedating antihistamines, and, due to variability in patient response and differences in the pharmacologic profile of individual agents, it is desirable to have a selection of both types of antihistamines available. Acrivastine has a rapid onset of activity and achieves its maximum effect in the skin relatively quickly[5]; and in this sense, its pharmacologic profile is different from that of the other new-generation less-sedating antihistamines terfenadine[6] and astemizole,[7] both of which are relatively slow in reaching their maximum effects. Acrivastine's fast action is likely to be of value in the treatment of patients with histamine-mediated dermatoses, as in many instances symptoms are intermittent and patients often tend to treat themselves "on demand."

Drug Names

acrivastine: Semprex, BW 825C
astemizole: Hismanal
clemastine: Tavegil
terfenadine: Triludan

References

1. Cohen AF, Hamilton M, Philipson R, et al. The acute effects of acrivastine (BW 825C), a new antihistamine, compared with triprolidine on measures of central nervous system performance and subjective effects. Clin Pharmacol Ther. 1985;38:381-386.
2. Gibson JR, Harvey SG, Barth JH, et al. An assessment of the novel antihistamine BW 825C in the treatment of chronic idiopathic urticaria. Dermatologica. 1984;169:179-183.
3. Neittaanmaki H, Fraki JE, and Gibson JR. Treatment of idiopathic acquired cold urticaria with acrivastine (BW 825C) (abstract). Clin Exp Dermatol. 1987;12:149-150.
4. Cochran WG. The comparison of percentages in matched samples. Biometrika. 1950;37:256-266.
5. Hamilton MJ, Ashby L, Cohen AF, et al. A comparative study of acrivastine and terfenadine on histamine (H_1-receptor) antagonism in skin and central actions in man. Br J Clin Pharmacol. 1985;20:283P-284P.
6. Sorkin EM, Heel RC. Terfenadine: a review of its pharmacodynamic properties and therapeutic efficacy. Drugs. 1985;29:34-56.
7. Krause L, Shuster S. Mechanism of action of antipruritic drugs. Br Med J. 1983;287:1199-1200.

Cholera

Cholera was a manageable disease. Of this the regular physicians were assured. It could be deprived of its malignancy if the "premonitory symptoms" were treated in time; and it had been proven that a "painless diarrhea" was the universal premonitory symptom. Belief in the efficacy of this—or some—principle of treatment was a necessary and, perhaps, inevitable means by which physicians and laymen alike preserved their equanimity when surrounded by uncertainty and death. "All that was obscure, mysterious, and empirical" had been replaced by a cure "dependent on rules of science easily comprehended." Only those who had first predisposed themselves, and had then ignored the premonitory symptoms, became cholera victims. In dozens of American communities, physicians could confidently point to cases of incipient cholera that had been cured by opportune treatment.—*Rosenberg CE. The cholera years. Chicago: University of Chicago Press, 1962:65.*

This document is a scanned copy of a printed document. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material.