Double-blind challenge tests with food additives in chronic urticaria

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We have carried out a series of double-blind challenge tests using tartrazine and sodium benzoate in patients with chronic urticaria. In order to test the reproducibility of results, the challenge tests were performed at least three times in each patient.

Seventeen male and twenty-seven female patients, with urticaria lasting at least 3 months, were challenged. Low dose challenge capsules contained 5 mg tartrazine plus 50 mg sodium benzoate. High dose challenge capsules contained 50 mg tartrazine plus 500 mg sodium benzoate. Placebo capsules contained lactose. Patients received low dose challenge tests initially, and progressed to two high dose challenge tests unless three consecutive low dose tests gave positive results. The challenge was considered positive if wealing occurred within 2 hours. Patients were on no special diet, and antihistamines were continued if considered necessary.

Of the various challenge tests performed, 11·8% of high dose, 8·0% of low dose, and 10·2% of placebo challenge tests were positive. Only four of forty-four patients reacted consistently to the challenge tests, two of these to active challenges and two to placebo.

We were unable, therefore, to confirm the findings of other authors using open or single-blind tests, that a large proportion of patients with chronic urticaria react to these food additives.

Discussant: J.L.Burton

The effect of ranitidine and clemastine, alone and in combination, on histamine and allergen-induced cutaneous weal and flare reactions

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Studies of the effect of cimetidine, an H_2-receptor antagonist, on cutaneous weal and flare reactions have produced somewhat conflicting results. To clarify the effect of H_2-receptor antagonism on these reactions we have examined the influence of ranitidine (a more potent H_2-receptor antagonist), alone and in combination with the potent H_1-receptor antagonist clemastine.

Thirty coded solutions were prepared comprising the two antagonist drugs, individually and in combination (over the range of concentrations 10^{-5} to 10^{-9}), using normal saline as a control. Using the method of Phillips *et al.* (1983) all thirty solutions were administered by intradermal injection, in random order, double-blind, in duplicate, into the forearms of thirty volunteers. Prick testing was subsequently performed over the sixty injection sites in each subject, using histamine in twenty subjects (ten atopic, ten non-atopic), and allergen in ten atopic subjects. Weal area and flare diameter were then measured.

Analysis of covariance of the results showed that ranitidine alone did not significantly inhibit these reactions at any concentration tested; clemastine demonstrated significant concentration-dependent inhibition of the reactions. The drug combination resulted in a slightly greater inhibition of weal area and flare diameter than that achieved by clemastine alone, but this was statistically significant only at the highest ranitidine concentrations.

Whilst these results provide further support for the presence of cutaneous H_2-receptors, we conclude that in the production of histamine- and allergen-induced weal and flare reactions, the contribution provided by stimulation of these H_2-receptors is only small.

REFERENCE

PHILLIPS, M.J., MEYRICK THOMAS, R.H., MOODLEY, I. & DAVIES, R.J. (1983) *British Journal of Clinical Pharmacology*, **15**, 277–286.

Discussant: M.W.Greaves

A double-blind crossover trial of egg and milk exclusion diets in atopic eczema

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Fifty-three patients entered the trial which was performed to re-evaluate the benefit of an egg and milk/chicken and beef exclusion diet in atopic eczema sufferers. The design of the trial was similar to that described by Atherton *et al.* in 1978, except that each study period was longer (6 weeks instead of 4), and a wider range of patients was studied (twenty-three aged 1–8 years, twelve aged 8–16 years and eighteen aged 16–32 years). Topical steroid consumption in each phase of the trial was measured and the predictive value of prick tests and RAST tests to relevant allergens was also assessed.

Forty patients completed the trial with good adherence to an arduous diet; consumption of milk substitutes (soya milk and a 'control' egg and milk powder) was less satisfactory. As a result of the study continued egg and milk exclusion was recommended in ten patients, five of whom were in the youngest age group. This is an overall positive response rate of 25% rising to a maximum 35% in the 1–8 year olds. We have therefore failed to confirm the reported 60% response rate in young children to such a diet. Older children and adults appear even less likely to benefit.

REFERENCE

ATHERTON, D.J., SOOTHILL, J.F., SEWELL, M. & WELLS, R.S. (1978) A double-blind controlled crossover trial of an antigen-avoidance diet in atopic eczema. *Lancet*, **i**, 401.

Discussant: G.M.Levene

Increased incidence of spontaneous abortions in two families with epidermolysis bullosa—is there an associated chromosomal abnormality?

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We present the pedigrees of two families with epidermolysis bullosa showing above average spontaneous abortion rates. In one family with autosomal recessive dystrophic epidermolysis